

**IN THE UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION**

LIFESTYLE COMMUNITIES, LTD., et al.,) Civil Action 2:22-CV-1775
)
Plaintiffs,)
v.) Judge Sarah D. Morrison
)
CITY OF WORTHINGTON, OHIO,)
Defendant.) Magistrate Judge Elizabeth P. Deavers
)

PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

EXHIBIT 24

LC WORTHINGTON

WORTHINGTON, OHIO

PUD - PRELIMINARY PLAN
AND
ARCHITECTURE REVIEW BOARD
SUBMITTALS

DATE: OCTOBER 2, 2020



LEGAL COUNCIL

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DEVELOPER

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TEL: 614-882-2500
FAX: 614-890-2511

OWNERS

UNITED METHODIST CHILDREN
HOME WEST OHIO
LC LARRIMER LLC.
230 WEST STREET, SUITE 200
COLUMBUS, OH 43215

SURVEYOR, ENGINEER, & PLANNER

EMHT. INC.
EDWARD J. MILLER, PS.
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TABLE OF CONTENTS

SECTION 1: APPLICATION MATERIALS

- PUD PRELIMINARY PLAN APPLICATION
- ARCHITECTURAL REVIEW BOARD APPLICATION
- LIST OF ADJACENT OWNERS
- LEGAL DESCRIPTION
- VICINITY PLAN
- DEVELOPMENT TEXT
- UTILITY FEASIBILITY MEMO
- TRAFFIC IMPACT STUDY (8 PAGES)

SECTION 2: PLAN DOCUMENTS

- 1 - TITLE SHEET
- 2 - ILLUSTRATIVE SITE PLAN
- 3 - ADJACENT ZONING
- 4 - EXISTING CONDITIONS PLAN
- 5 - SUBAREA PLAN
- 6 - SITE PLAN
- 6a - SUBAREA 1 ENLARGEMENT
- 6b - SUBAREA 2 ENLARGEMENT
- 6c - SUBAREA 3 ENLARGEMENT
- 6d - SUBAREA 4 ENLARGEMENT
- 7 - PARKING PLAN
- 8 - COMMUNITY CHARACTER
- 9 - OPEN SPACE PEDESTRIAN CONNECTIVITY AND AMENITIES PLAN

SECTION 3: ARCHITECTURAL DOCUMENTS

- 10 - NEIGHBORHOOD IDENTITY
- 11 - STREETSCAPE CHARACTER
- 12 - OPEN SPACE CHARACTER
- 13 - TYPICAL STREET SECTIONS
- 14 - TYPICAL STREET SECTIONS
- 15 - TREE SURVEY AND PRESERVATION PLAN
- 16 - TREE SURVEY AND PRESERVATION PLAN
- 17 - TREE SURVEY TABLE
- 18 - TREE SURVEY TABLE
- 19 - SANITARY SEWER PLAN
- 20 - WATER MAIN PLAN
- 21 - MASTER STORMWATER MANAGEMENT PLAN
- 22 - STORM SEWER AND GRADING PLAN

SECTION 4: PHOTOMETRICS

- PHOTOMETRICS PLAN/LIGHTING CUT SHEETS

SECTION 5: DEED RESTRICTIONS

- SINGLE FAMILY DEED RESTRICTIONS
- TOWNHOME DEED RESTRICTIONS

SECTION 1- APPLICATION MATERIALS
LC WORTHINGTON • PUD • ARB SUBMITTAL
OCTOBER 2, 2020



City of Worthington

PLANNED UNIT DEVELOPMENT PRELIMINARY PLAN APPLICATION

Case #	_____
Date Received	_____
Fee	_____
Meeting Date	_____
Filing Deadline	_____

1. Property Location 1033 High St; Parcel#100-006774; 100-002427; 100-002425
2. Present Zoning S-1; Special; C-3 Institutions/Offices Present Use Institutional Office
C-2 Community Shopping Ctr
3. Proposed Use PUD with Mixed Uses of single family, multi-family, townhouses
apartments, commercial and medical office
4. Applicant _____

Address 230 West St, Ste 200, Columbus, OH 43215

Home Phone N/A Work Phone 614-918-2000

5. Property Owner United Methodist Childrens Home

Address 431 E. Broad St, Columbus, OH 43215

Home Phone N/A Work Phone 614-885-5020

6. Project Description Modern, amenitized mixed use development including

single family homes, owner-occupied townhomes, for rent townhomes and apartments,
commercial uses such as office, medical offices, restaurants, work facilities
and outdoor recreation and community spaces connected with paths and
sidewalks, multi-story parking facilities and protected natural area.

PLEASE READ THE FOLLOWING STATEMENT AND SIGN YOUR NAME:

The information contained in this application and in all attachments is true and correct to the best of my knowledge. I further acknowledge that I have familiarized myself with all applicable sections of the Worthington Codified Ordinances and will comply with all applicable regulations.

Applicant (Signature)

Date

Property Owner (Signature)
Children's Home
Champion

Date

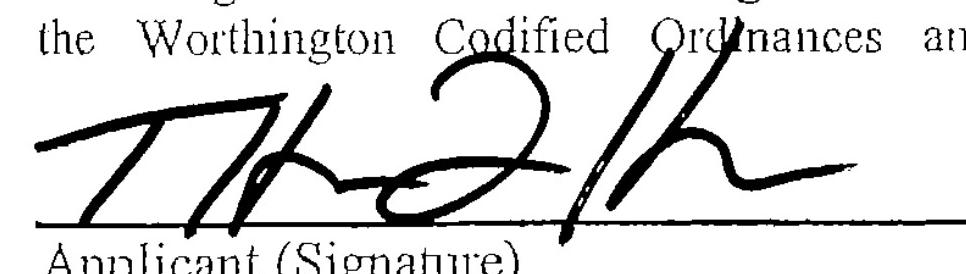


City of Worthington
ARCHITECTURAL REVIEW BOARD
Certificate of Appropriateness
Application

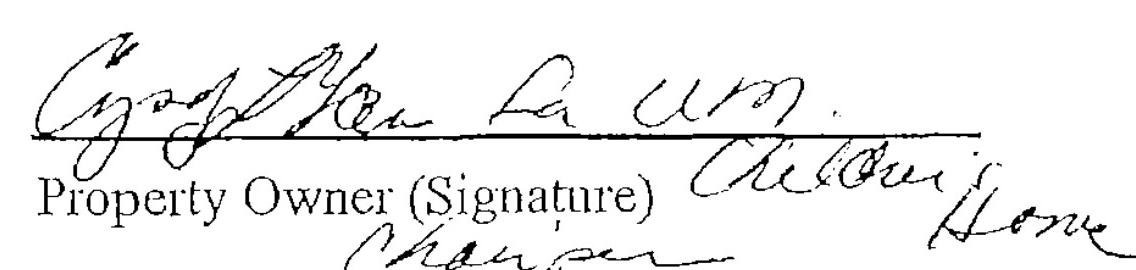
Case #	_____
Date Received	_____
Fee	_____
Meeting Date	_____
Filing Deadline	_____
Receipt #	_____

1. Property Location 1033 High Street, Parcel #100-006774; 100-002427; 100-002425
2. Present/Proposed Use S-1 Special; C-2 Community Shopping; C-3 Institutions/Mixed Use PUD
3. Zoning District S-1, C-3, C-2
4. Applicant _____
Address 230 West Street, Ste. 200, Columbus, OH 43215
Phone Number(s) 614-918-2000
Email _____
5. Property Owner United Methodist Childrens Home
Address 431 E. Broad St., Columbus, OH 43215
Phone Number(s) 614-885-5020
Email _____
6. Project Description modern amenitized mixed use development including single-family homes, owner-occupied townhomes, for rent townhomes and apartments, commercial uses such as office, medical offices, restaurants, work-facilities and outdoor recreation and community spaces connected with paths and sidewalks, multi-story parking facilities and protected natural area
7. Project Details:
 - a) Design See attached project narratives
 - b) Color Colors vary but are comparable with existing neighborhood
 - c) Size 19 SF, 166 townhomes, 540 apartments, 60,000 SF commercial
25,000 SF medical
 - d) Approximate Cost Estimate pending. Expected Completion Date 2 to 4 years from construction start

PLEASE READ THE FOLLOWING STATEMENT AND SIGN YOUR NAME:
The information contained in this application and in all attachments is true and correct to the best of my knowledge. I further acknowledge that I have familiarized myself with all applicable sections of the Worthington Codified Ordinances and will comply with all applicable regulations.

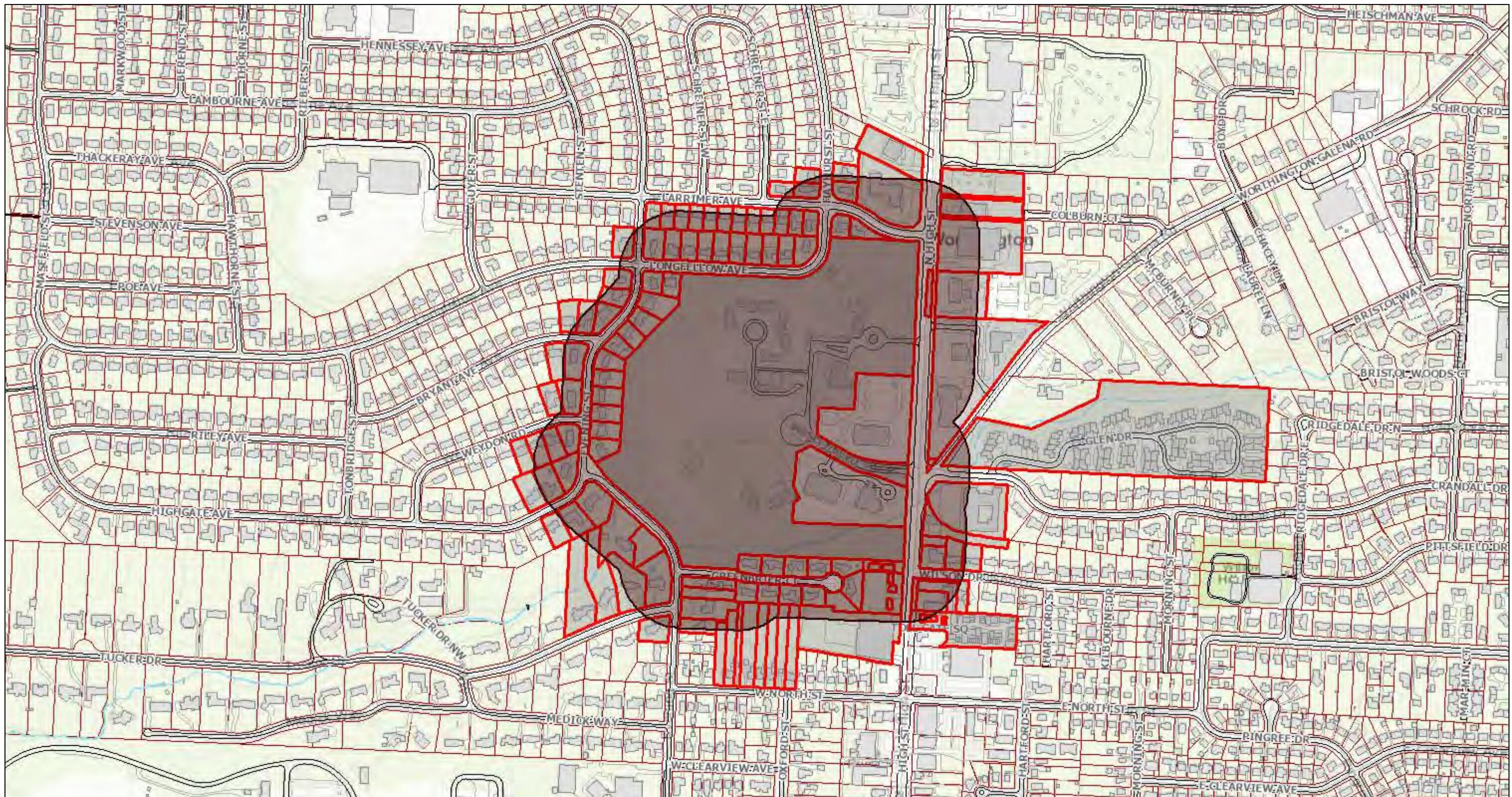

Applicant (Signature)

10-02-2020
Date


Property Owner (Signature) *Robert L. Jones* 10-2-2020
Date

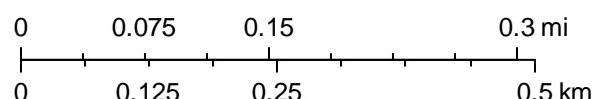
Franklin County Auditors Office

CITY OF WORTHINGTON
DRAWINGS NO. AR 70-2020
PUD 03-2020
DATE 10-02-2020



October 1, 2020

1:7,345



Franklin County Auditor
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

ZONING DESCRIPTION
37.843 ACRES

Situated in the State of Ohio, County of Franklin, City of Worthington, in Lots 30, 31 and 32, Quarter Townships 2 and 3, Township 2, Range 18, United States Military Lands, being comprised of Lot 4 of the subdivision entitled "Replat of Lot 2 of United Methodist Children's Home Amended Subdivision", of record in Plat Book 122, Page 75, that 0.234 acre tract of land conveyed to Walter H. Beever and Deborah J. Beever by deed of record in Instrument Number 199811200299507, and that 0.263 acre tract of land conveyed to Rodger E. Russi and Anne E. Russi by deed of record in Official Record 10894D18 (all references are to the records of the Recorder's Office, Franklin County, Ohio) and more particularly bounded and described as follows:

BEGINNING at the northeasterly corner of said Lot 4, at the intersection of the southerly right of line of Larrimer Avenue and the westerly right of way line of North High Street (U.S. Route 23);

Thence South 03° 03' 59" West, with said westerly right of way line, a distance of 658.20 feet to the northeasterly corner of Lot 3 of said subdivision;

Thence with the boundary of said Lot 3 the following courses and distances:

North 86° 56' 01" West, a distance of 276.50 feet to a point;

South 03° 03' 59" West, a distance of 177.50 feet to a point;

North 86° 56' 01" West, a distance of 177.41 feet to a point;

South 03° 03' 59" West, a distance of 136.12 feet to a point;

South 60° 37' 31" East, a distance of 183.95 feet to a point;

With the arc of a curve to the left, having a central angle of 21° 27' 56", a radius of 415.20 feet, an arc length of 155.55 feet, a chord bearing of South 75° 00' 22" East and chord distance of 154.64 feet to a point; and

With the arc of a curve to the left, having a central angle of 02° 42' 26", a radius of 2915.10 feet, an arc length of 137.73 feet, a chord bearing of South 86° 24' 33" East and chord distance of 137.72 feet to a point in said westerly right of way line;

Thence South 03° 03' 59" West, with said westerly right of way line, a distance of 118.70 feet to the northeasterly corner of Lot 1 of the subdivision entitled "United Methodist Children's Home Amended Subdivision", of record in Plat Book 83, Page 53;

Thence with boundary of said Lot 1 the following courses and distances:

North 69° 23' 51" West, a distance of 177.67 feet to a point;

With the arc of a curve to the right, having a central angle of 19° 48' 22", a radius of 419.51 feet, an arc length of 145.02 feet, a chord bearing of North 70° 31' 42" West and chord distance of 144.30 feet to a point;

North 60° 37' 31" West, a distance of 196.02 feet to a point;

South 63° 07' 29" West, a distance of 76.93 feet to a point;

South 02° 33' 54" West, a distance of 92.56 feet to a point;

South 24° 40' 46" West, a distance of 21.59 feet to a point;

South 02° 33' 54" West, a distance of 53.75 feet to a point;

South 26° 52' 13" East, a distance of 65.37 feet to a point;

South 63° 07' 47" West, a distance of 36.89 feet to a point;

South 02° 33' 54" West, a distance of 97.12 feet to a point; and

South 87° 26' 07" East, a distance of 555.40 feet to a point in said westerly right of way line;

Thence South 03° 03' 59" West, with said westerly right of way line, a distance of 169.08 feet to the northeasterly corner of the subdivision entitled "Greenbrier Hill", of record in Plat Book 56, Page 17;

Thence with the boundary of said subdivision the following courses and distances:

North 87° 26' 07" West, a distance of 811.45 feet to a point;

South 05° 12' 42" West, a distance of 72.04 feet to a point; and

North 86° 45' 27" West, a distance of 274.27 feet to a point in the easterly right of way line of Evening Street;

Thence with said easterly right-of-way line the following courses and distances:

With the arc of a curve to the left, having a central angle of 42° 29' 09", a radius of 308.91 feet, an arc length of 229.06 feet, a chord bearing of North 26° 57' 27" West and chord distance of 223.85 feet to a point;

North 48° 12' 01" West, a distance of 350.00 feet to a point; and

With the arc of a curve to the right, having a central angle of 21° 28' 15", a radius of 255.00 feet, an arc length of 95.56 feet, a chord bearing of North 37° 36' 34" West and chord distance of 95.00 feet to the southwesterly corner of Lot 64 of subdivision entitled "Worthingway", of record in Plat Book 36, Page 92;

Thence North 63° 07' 34" East, with the boundary of said subdivision, a distance of 135.00 feet to a point;

Thence North 03° 32' 32" East, with the boundary of said subdivision, a distance of 440.00 feet to the southwesterly corner of Lot 185 of the subdivision entitled "Worthingway No. 3", of record in Plat Book 36, Page 94;

Thence North 44° 01' 32" East, with the boundary of said subdivision, a distance of 385.00 feet to a point;

Thence North 03° 09' 52" East, with the boundary of said subdivision, a distance of 152.54 feet to a point in the southerly right-of-way line of Longfellow Avenue;

Thence with said southerly right-of-way line the following courses and distances:

South 86° 50' 08" East, a distance of 549.90 feet to a point;

With the arc of a curve to the left, having a central angle of 90° 06' 37", a radius of 174.66 feet, an arc length of 274.69 feet, a chord bearing of North 48° 06' 29" East and chord distance of 247.24 feet to a point;

North 03° 03' 59" East, a distance of 99.97 feet to a point; and

With the arc of a curve to the right, having a central angle of 101° 20' 27", a radius of 50.00 feet, an arc length of 88.44 feet, a chord bearing of North 53° 44' 12" East and chord distance of 77.35 feet to a point in the southerly right of way line of said Larrimer Avenue;

Thence with said southerly right of way line the following courses and distances:

With the arc of a curve to the right, having a central angle of $23^\circ 11' 35''$, a radius of 307.62 feet, an arc length of 124.52 feet, a chord bearing of South $64^\circ 01' 28''$ East and chord distance of 123.67 feet to a point;

With the arc of a curve to the left, having a central angle of $34^\circ 25' 12''$, a radius of 377.62 feet, an arc length of 226.85 feet, a chord bearing of South $69^\circ 37' 00''$ East and chord distance of 223.46 feet to a point; and

South $86^\circ 50' 08''$ East, a distance of 50.12 feet to the POINT OF BEGINNING, containing 37.843 acres of land, more or less.

EVANS, MECHWART, HAMBLETON & TILTON, INC.

Xrefs- 2018Q36-PREF-TIA-REFR-N 2018Q36-95-~~S-REFR-F~~ 2018Q36-C-~~S-REFR-N~~

LARRIMER AVENUE

WORTHINGTON ESTATES (1960)

WORTHINGWAY

SECTION 2

(1965)

LONGFELLOW AVENUE (60')

WEYDON RD

WORTHINGWAY (1965)

(-10%)

DEDICATION OF TUCKER DRIVE NORTHWEST (1972)

EVENING STREET

REZONING AREA 37.8± Ac

GREENBRIER HILL

(1979)

GREENBRIER COURT

THE GRC
WORTHY

CITY OF WORNINGTON
DRAWINGS NO. AR 70-2020
PUD 03-2020
DATE 10-02-2020

KEY	ZONING
SYMBOL	
	S-1 Special
	R-16 Very Low Density Residential
	R-10 Low Density Residential
	AR-4.5 Low Density Apartment Residences
	SC Senior Citizen
	C1 Neighborhood Commercial
	C2 Community Shopping Center
	C3 Institutions and Offices
	PUD Planned Use District
	Rezoning Area

CITY OF WORTHINGTON, FRANKLIN COUNTY, OHIO
PUD-PRELIMINARY PLAN
ARB - SITE PLANS
FOR
UMICH SITE
WORTHINGTON VICINITY MAP

REVISI観

1

100

CITY OF WORTHINGTON, FRANKLIN COUNTY, OHIO
PUD-PRELIMINARY PLAN
ARB - SITE PLANS
FOR
UMICH SITE
WORTHINGTON VICINITY MAP

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emht.com

OCTOBER 2, 2020

JOB NO.

1/1

**LIFESTYLE COMMUNITIES
LC WORTHINGTON PLANNED UNIT DEVELOPMENT TEXT**

October 2, 2020

Former United Methodist Children's Home Site

Address: 1033 High Street

Location: Westside of North High Street between Larrimer Avenue and Greenbrier Court and Evening Street on the former United Methodist Children's Home site.

Total Acreage:

+/- 37.80 gross acres

+/- 36.4 net developable area acres

725 residential units

60,000 sf commercial

25,000 sf medical office

+/- 10.1 open space acres

Existing Zoning: S-1 Special, C-3 Institutions and Offices and C-2 Community Shopping Center

Proposed Zoning: PUD with Mixed Uses of Single-Family, Multi-Family Townhomes and Apartments, Commercial and Medical Offices.

I. INTRODUCTION AND PURPOSE

The subject property is made up of parcel numbers 100-006774, 100-002427 and 100-002425 and 37.80+/- gross acres. The property is located west of North High Street and is bordered in part by Greenbrier Court, Evening Street, Longfellow Avenue and Larrimer Avenue. The existing Wesley Boulevard and Larrimer Avenue are the main access points to the proposed development from High Street. Additional access points are proposed into the development from Longfellow Avenue and Evening Street.

The property is surrounded on three sides by single family residences in the Worthingway, Worthington Estates, Greenbrier Hill and Larrimer subdivisions, as well as office/institutional uses. The property across North High Street and in the immediate High Street corridor includes the Worthington Fire Department, the Worthington Municipal complex, a bank and various offices, medical and institutional uses.

As stated in the Worthington Comprehensive Plan ("Comprehensive Plan"), "[b]ecause of its size, location and importance of the UMCH site, it is critical that any redevelopment be master planned and consider the site as a whole." (p.90) As expected by the Comprehensive Plan, this application for "redevelopment include[s]

rezoning of the entire site to a Planned Unit Development," providing flexibility and an emphasis on mixed uses... (p. 91) The development plan follows the diagram on page 91 of the Comprehensive Plan, transitioning uses from west to east as follows: single-family residences, townhomes, apartments, commercial and, finally, office spaces fronting North High Street.

The LC Worthington PUD development plan proposes a variety of high quality mixed uses with an updated urban pattern and architecture. The plan is walkable, with subareas connected internally and integrated with connections to surrounding neighborhoods and the balance of the City as recommended in the Comprehensive Plan. (p. 90-91). New single-family homes, townhomes, apartments, medical/office and retail spaces with integrated greenspaces and activity centers are designed to serve the changing demographics and economic needs of the community. The Comprehensive Plan points out that such mixed uses should be designed to "...complement each other to create an active, vibrant place." (p. 91) This point and the proposed development plan's integrated design recognizes that in today's market a critical mass of density and mix of uses creates vibrancy and supports the "live, work, play" environments that attract young professionals, active adults and empty nesters alike, as well as employers and businesses seeking to accommodate such key employee demographics. (p. 92 – "The objective of the High Street Mixed Use zone is to create a high-quality, dense, walkable, connected, mixed-use development that creates a dynamic space and signature address to attract Class A office tenants along High Street and add vitality and life to the High Street corridor.") The updated housing types attempt to fill the gap in housing choice currently facing Worthington as a community. (See Comprehensive Plan Objective 3 p. 91: "Addressing the needs of current and future residents by providing new housing types/options that are under-represented in the market and complement Worthington's current offerings.")

The variety of housing types in the proposed plan recognizes that central Ohio and local housing needs are evolving. MORPC's Insight 2050 report documents the national and local trend of shrinking demand for larger lot, single-family homes and the increasing demand for smaller detached homes on smaller lots, attached/townhomes and multifamily housing of all types. These transitioning consumer preferences to more and multiple housing options suit changing lifestyles and needs at all tiers of the housing market. Mixed use developments include apartments in many forms and configurations, including mid-to-high rise; condominiums, detached or attached buildings; and townhomes, either rented or owner-occupied. All of these housing options have surged in acceptance, popularity and market momentum to serve owners looking for alternatives to single-family homes in central Ohio's most dynamic submarkets, including Bridge Street in Dublin, downtown Columbus, the Short North, Grandview and Hilliard. (See MORPC, Insight 2050 attached to this application.) In such communities, density equals vibrancy, as employment, housing and entertainment uses and options merge to create energetic, twenty-four hour living environments.

According to MORPC, demographic, family and workforce trends are also driving changes in housing preferences across central Ohio. These trends include the aging of the baby-boom population, the growth of households without children and the number of single-occupant households. All such trends create demand for housing other than traditional single family. This is especially relevant in Worthington based on current lack of housing options, community demographics and the reality that many aging single-family homeowners will seek a different housing choice within the next 5 to 10 years, but typically want such choice in their own community. (see Comprehensive Plan pages 22,23,24 and 58,59,60)

Worthington is one of oldest established communities in central Ohio. The City's median age is 4 years older than the median age of Ohio in general. The number of people over 65 is expected to double over the next several decades as average life expectancy is expected to lengthen. (See MORPC, Columbus Area Transportation Plan, 2016 to 2040, pp 2-3) The growing aging population and the national and local housing trend of large numbers of baby-boomers downsizing from traditional single family homes to alternative housing choices are very important housing market drivers in Worthington. As explained by the Insight 2050 Report, there is considerable need for attached and multi-family housing choices designed for empty nesters, active adults and boomers who want the option of leaving their traditional single-family homes. Many other central Ohio communities are providing such options and accommodating the changing needs of long-time residents. The proposed development provides Worthington residents the ability to downsize in their own community which meets a key Comprehensive Plan objective.

In addition, under normal conditions, business leaders, job location decision-makers and their employees increasingly focus on commute distances and duration when locating and growing businesses. With the competition for scarce numbers of qualified and work-ready talent, top corporate decision-makers now commonly ask local governments, "where can our people live," and "what housing options are available to our employees close to work." Employee commute time, work proximity, housing choices, availability, modern designs accommodating work from home flexibility, and amenities that come with updated housing are more important quality of life components today than ever before.

The Comprehensive Plan documents that as of 2005 (the publication date) 85.2% of Worthington's existing housing stock was traditional single-family housing. (p. 22, 2005 Comprehensive Plan.) At that time, 14+ years ago, the majority of that housing was at least 30 years old, with a significant portion over 50 years old. (ibid.) This high quality housing stock undoubtedly defines and characterizes Worthington as a unique and outstanding place to live. Yet, as the Comprehensive Plan points out, such aging housing lacks modern layouts, room sizes, and amenities, and requires significant maintenance, technology upgrading, work-space reconfiguration and remodeling to hold its value and remain competitive. (ibid.) Importantly, this dominance of aging single-family homes creates a "gap" in the community's market and housing needs which the Comprehensive Plan seeks to address. (id. p. 23) A

greater variety of housing options, close to downtown Worthington's vibrant shops, restaurants, recreation, arts and entertainment amenities, are cited as needed to close this gap and meet the needs of residents and the changing buyer preferences driven by down-sizing baby boomers, young professionals, active adults, singles and seniors aging in place. The Comprehensive Plan states that alternative housing types are needed that include rental, with maintenance services, modern group amenities such as gyms and social spaces, all with proximity to centers of community activity. (ibid.) Work from home spaces and built-in technology systems could be added to this amenities list in terms of must-have market demands. The Comprehensive Plan also recognizes that the economy of scale of higher density is necessary to achieve these goals and close this "housing availability gap." (id. p. 24)

When referencing the illustrative conceptual plans for the subject site the Comprehensive Plans states, "This residential area would consist of cluster residential development and transition to more dense urban village residential development to help address the housing type imbalance of the City." (id. p. 90)

The proposed mixed-use development attempts to meet the market demands, demographic trends and Comprehensive Plan goals cited above. Commercial, office and medical uses create the opportunity for significant employment and an increase in City tax revenues along High Street, in line with City goals. As specified in the Comprehensive Plan, the most density and diversity of uses are placed in the middle of the site, and residential housing types are mixed, with owner-occupied townhomes, rental units, and amenitized apartment buildings. Park, gathering spaces, tree lined streets, alley accesses and other amenities create interest and define different housing areas. (See *Neighborhood Core* pages 93 and 94.) The placement of single-family homes is consistent with Comprehensive Plan recommendations under the *Worthington Estates Edge* transition zone on pages 92 and 93 of the Comprehensive Plan and matches recommended densities for that zone. Consistent with Comprehensive Plan recommendations, this development plan preserves approximately 5.7 acres along Tucker Creek as a designated community open space amenity and proposes a dedication of this unique natural area to the City for preservation. Consistent with the Comprehensive Plan, this dedication provides the opportunity for a public pedestrian connection from High Street and Evening Street via a path system. Other pedestrian connections are key elements under the development plan, via both on-street and off-street sidewalk and path systems. These pedestrian connections continue throughout the site linking to High Street and the adjacent sidewalk system on the adjoining residential lots at Larrimer, Longfellow Avenue and Evening Street, creating both internal connectivity and integration with the greater community, as sought in the Comprehensive Plan.

II. 1174.03 GENERAL PROVISIONS

(d) Overlay District – Chapter 1177 of the Worthington Code, the Architectural Review District applies to this site.

(e) Ownership – The United Methodist Children’s Home West Ohio (current) and under contractual agreement with the developer/applicant.

III. 1174.04 ALLOWABLE USES

“The mix of uses allowed in a PUD shall meet changing economic and demographic demands; permit implementation of development standards, plans, studies and guidelines adopted by the City Council; and/or provide the opportunity to retain and enhance the character of the City, and the health, safety and general welfare of the inhabitants.”

Consistent with this code language, the text recognizes that PUD standards are designed to be flexible and are proposed by the applicant to allow innovation, meet changing market demands and fill gaps in housing and commercial services. Most modern developments in urban and suburban cores involve mixing of uses to meet market and community demands. Generally, the option of Planned District Zoning and PUDs are added to zoning codes because straight code districts are rigid and do not support changing preferences and conditions over time. The Planned District approach is utilized under this text and for this development because it allows divergences from strict code limitations and encourages flexibility in standards to meet the demands of modern mixed-use development. The strict nature of the base code would discourage such flexibility.

This site will include a mix of single-family homes, townhomes, apartments, medical/office, retail, open spaces and community amenities to serve the growing demographic and economic needs of the community in a manner consistent with the Comprehensive Plan.

Refer to Subarea details for specific allowable uses.

IV. 1174.05 DEVELOPMENT STANDARDS AND DEVELOPMENT STANDARDS TEXT PER SUBAREA

Subarea	Unit Type	Unit Count	Acres
1	Single Family	24	5.9
2	Multi-Family	94 units w/ garages	9.0
3	Multi-Family	72 units	5.1
4	Multi-Family Commercial Medical Office	540 units 60,000 sq. ft. 25,000 sq. ft.	11.4
5	Tucker Creek/Storm Pond	N/A	6.4
Total		730	37.8

A. Subarea 1 – Worthington Estates Edge

Subarea 1 consists of +/-5.9 acres along the western and northern property borders with access to Evening Street and Longfellow Avenue.

1. Allowable uses – The following uses shall be allowed in Subarea 1. Unless a different definition of uses is provided within this Development Text, the definition of uses specified in the Code for the R-6.5 residential district shall apply.
 - a. 24 single-family dwelling lots that are at minimum 55 feet wide at the build line with a minimum lot area of 6,875 square feet.
 - b. Such single-family dwellings shall include square footages ranging from 1,600 to 2,800 square feet.
 - c. The uses appurtenant to single-family homes and those accessory and conditional uses related to R-6.5 single-family dwellings and allowed under Code section 1147.01, including but are not limited to garages, patios, decks, landscape/hardscape improvements, entry features, streets, utilities. However, two-family dwellings shall be prohibited in Subarea 1.
2. Density, Height, Lot and Setback Commitments.
 - a. 24 total single-family dwellings on +/-5.9 acres or 4.1 dwellings units per acre.
 - b. Single-family dwellings shall be up to 2½ stories, 1½ stories or single-story buildings with principle roof height not to exceed 35 feet at mid-height of the roof slope measured from the finished floor elevation.
 - c. Impervious lot areas for buildings and driveways shall not exceed 60% of the total area not including patios, decks, sidewalks, etc.
 - d. There shall be a minimum 20-foot building set back from Longfellow Avenue, Evening Street and the proposed public Street A internal to the site.
 - e. Rear setbacks shall be 25 feet and side yard setbacks shall be 5 feet. Decks and patios are allowed to encroach within the rear setbacks, however, no building foundations shall be allowed in rear setbacks.
 - f. Driveways may encroach 2 feet into side yard setbacks.

3. Access, Parking and/or Traffic Related Commitments.

- a. Street access from the public street networks to Subarea 1 shall be provided via public Street A which shall connect to Longfellow Avenue from the north and Evening Street from the south. All access points are subject to review and approval by the City Engineer. The location and design of all public streets are subject to City Engineer approval.
- b. Street A shall have a right of way of 50 feet and a pavement width of 26 feet from face to face of curb.
- c. Each single-family dwelling shall have a minimum two car attached garage. Driveways shall accommodate parking space for at least one off-street parking space.
- d. On street parking shall be permitted on Street A on the side of the street opposite the fire hydrants.
- e. Street A shall include 5-foot sidewalks and a minimum 6-foot tree lawn per side.
- f. Sidewalks or paths shall be installed to connect this subarea with adjacent subareas and uses and are depicted on Sheet 9 – Open Space, Pedestrian Connectivity and Amenities Plan.

4. Architectural Design and Standards

- a. Representative and illustrative examples of the architectural character of the single-family homes in this subarea are depicted in the sample elevations attached to this application.
- b. The architecture of the homes shall be “four-sided” as defined herein, and conform to the following standards set forth as follows:
 - i. Blank facades shall not be permitted.
 - ii. The same materials and details used on front elevations shall be carried through to and utilized on the other three elevations in a manner that creates continuity and balance.
 - iii. All sides of the homes shall display a high level of quality and architectural interest.
 - iv. All fronts of homes and those side elevations facing public streets shall be articulated with a minimum of at least three design elements listed below.

- v. All side elevations not facing public streets shall be articulated with at least two design elements listed below.
- vi. The following elements and details shall be considered “design elements” for creating the standards for four-sided architecture:
 - 1. Doors;
 - 2. Porches;
 - 3. Balconies;
 - 4. A window or grouping of windows at least 6 square feet;
 - 5. Window mullions;
 - 6. Bay windows or bay elements;
 - 7. Chimney;
 - 8. Masonry water tables;
 - 9. Masonry covered foundations;
 - 10. Decorative louvers or shutters of at least 3 square feet;
 - 11. Dormers (active and inactive); and,
 - 12. Vertical board and batten or shake style siding elements (provided such elements are compatible with the design, style and character of the home and subject elevation).
- c. The exterior of the buildings shall be restricted to the following approved siding and trim/accent materials in any combination that allows for consistent architectural treatment and aesthetics:
 - i. Fiber cement such as HardiPlank™ or a comparable cement fiber siding and trim products;
 - ii. Aluminum or vinyl soffits, vents, eaves and fascia or other hard to reach or maintain elements. For horizontal vinyl elements, .05 mm thickness shall be used;
 - iii. Stone, cultured stone or stone veneer;

- iv. Brick or thin brick;
 - v. Wood lap siding or trim, composite lap siding or trim, or cedar shake or composite siding or trim, (painted or stained), vinyl siding or trim with a thickness of .045 mm or greater;
 - vi. Roof materials: Dimensional architectural shingles, three-tab asphalt shingles, cedar shakes, tile, slate, synthetic slate, and metal as an accent feature on limited portions of roof areas;
 - vii. Chimneys: Chimneys shall be full masonry or full brick or brick veneer, stone or cultured stone. Exposed metal flues shall be painted to match the roof color. Cantilevered chimneys shall be prohibited;
 - viii. Gutters (and the materials by which gutters attach to the home) downspouts, soffits, garage entrance doors, secondary house doors, may be of man-made materials such as metal, aluminum, fiberglass and glass; and,
 - ix. Other materials used as minor accents subject to approval of the City Planning Department.
 - d. Trim Requirements: Sides and Rear Windows/Doors – 3 ½ inches actual minimum trim required, but not if window is bordered by masonry or includes shutters.
 - e. Overhangs Rakes and Eaves: Required 8 inches minimum from outside walls. The eaves shall be subject to the side setback requirements.
 - f. Exterior Colors:
 - i. Siding colors. Natural earth tones and/or warm neutral colors, including white. High-Chroma colors are not permitted.
 - ii. Trim colors. Natural earth tones and/or warm neutral colors, including white. Complementary or contrasting siding color. High-Chroma colors are not permitted.
 - iii. Roof Colors. Shingle colors shall be from the color range of natural materials; such as, but not limited to wood shakes, slate, etc.
 - g. Basements: All homes in Subarea 1 shall have partial or full basements, soil conditions permitting.
 - h. Garages: All homes shall have a minimum attached two-car garage. Garage door openings shall not exceed 45% of the width of the house façade for a two-car garage or 50% of the width of the house façade for a three-car garage, including the garage. Front loaded garages shall be flush with or not project more than 4 feet in front of the most forward facing architectural element of the homes, including porches. Where side-loaded garages will fit on corner lots or otherwise, side-loading shall be offered as an option subject to customer preferences. Courtyard and auto court configurations shall be permitted for garages and where utilized garage placement is not limited by the maximum 4 foot projection limitation from the front of the home. Garage doors on all front elevations shall be of a premium architectural style to compliment the architecture of the home. Decorative treatments (including a mix of but not limited to the following elements: decorative hinges, raised panels, vertical or horizontal accents, windows, or other architectural features) shall be required on all garage doors.
 - i. Diversity: The same home design with the same front elevation shall not be constructed on lots that are adjacent to one another. House models with the same footprint may be allowed within the distance and parameters described above provided that such houses incorporate substantial differences in the front elevations such as material changes, configuration of front porch, etc.
 - j. Roof pitches: Main roofs shall have a minimum pitch of 6/12. Secondary roof pitches shall match the architectural design of the homes.
 - k. Accessory Structures: No sheds shall be permitted.
 - l. Above ground swimming pools shall be prohibited. In-ground swimming pools and hot tubs shall be permitted as governed by private deed restrictions and shall meet all code requirements.
 - m. Any deviations to these standards shall be approved by the Planning Department prior to the approval of a building permit.
5. Landscaping and Screening
- a. All landscaping shall meet the provisions of the Zoning Code except where varied herein.
 - b. Any portion of a lot that is not covered by buildings, drives or parking areas shall be landscaped with lawn as a minimum. Those areas that are designed as landscaped buffers, tree lawns, tree preservation,

entry features, or other landscaped features shall be maintained according to City Code standards.

- c. Street trees shall be provided at one tree per 40 linear feet with breaks as necessary for streetscape elements such as driveways, light fixtures, fire hydrants, etc.
- d. Tree protection and/or replacement provisions:
 - i. The Development Plans indicate the areas in which trees shall be saved and protected.
 - ii. The developer/builder shall make reasonable, good faith efforts to preserve existing healthy trees on site during construction.
- e. The developer shall make a good faith effort to save all perimeter trees that are in healthy to fair condition, subject to utility services placement.
- f. Proposed community entrance feature locations and character images are depicted on the development plans Sheet 10. Design entry features shall be provided with the final development plan.
- g. All fencing must meet City Code provisions. No chain link shall be allowed on any lot.

6. Graphics, Signage and Lighting and Trash Collection:

- a. All graphics and signage for Subarea 1 shall conform to code.
- b. See development plan sheets 8 and 9 for decorative pedestrian lighting specifications and placement.
- c. Trash collection shall be public.

B. Subarea 2 – Neighborhood Core

Subarea 2 consists of +/-9.0 acres internal to the site with private alleys and street access to public Street A and the planned extension of Wesley Boulevard (public Street B).

1. Allowable uses – The following uses shall be allowed in Subarea 2.
 - a. Subarea 2 shall include not more than 94 townhome dwellings on

separate fee simple lots with garages provided with access to private alleys. The townhomes shall be offered for sale to owner occupants as single-family attached dwellings.

- b. Such townhome dwellings shall be a minimum of 1,000 square feet.
- c. The uses appurtenant to townhomes and those accessory and conditional uses related as specified under Code section 1147.01 for A-3 uses include but are not limited to garages, patios, decks, landscape/hardscape improvements, entry features, public and private streets and alleys, and utility, and ancillary facilities to residences.
- d. Multiple programmed open and amenities spaces are detailed on Sheet 8 – Community Character and Sheet 9 – Open Space, Pedestrian Connectivity and Amenities Plan. These spaces will include public amenities detailed on Sheet 9, which are to be finalized at the time of final development plan. (Note: Mail facilities are planned as shown on plan sheet 8, but final locations and configurations are subject to approval by the USPO Postmaster.)

2. Density, Height, Lot and Setback Commitments.

- a. 94 total townhomes on +/-9.0 acres or +/-10.4 dwellings units per acre.
- b. Townhome dwellings shall include a mix of two and three-story buildings. The maximum building height shall be measured under the zoning code definition of height and shall be 60 feet for three-story buildings and 35 feet for all other buildings. Patios off dormers and gables are permitted. Finished attic space is permitted.
- c. Lot sizes will range from 16 to 24 feet in width and have a minimum depth of 92 feet.
- d. There shall be a minimum 10-foot building set back from the reserve line of private Streets B, C, D and E and 10 feet from the right-of-way of public street A. Front porches shall not be any closer than within 4 feet of the reserve line of private streets. There shall be a zero setback from Subarea 5. There shall be a minimum 5 feet building setback from the reserve line of the private alley.
- e. Townhomes are zero lot line with no side yard setback between units. The minimum setback between the rear of the townhome and the garage shall be 20 feet where detached garages are utilized. Corner unit shall have a 10 feet side yard setback from the reserve line of the private street.

3. Access, Parking and/or Traffic Related Commitments:

- a. Street access from the public street networks to Subarea 2 shall be provided via multiple access points to public Street "A". Other access points are depicted on plans from private Streets B, C D, and E and private alleys. All access points are subject to review and approval by the City Engineer.
- b. Private streets shall have a 20-foot drive aisle with an 8-foot wide by 22-foot long parallel parking space on both sides. Private streets shall be located within a 56-foot wide reserve. Private alleys shall have a 16-foot drive within a 20-foot wide reserve.
- c. For the townhome dwellings, a minimum of 1.5 parking spaces per dwelling unit shall be provided. Each townhome dwelling shall include a detached garage. Additional unassigned on-street parking will be available throughout the subarea and overall development for resident and guest parking.
- d. Parallel on street parking shall be allowed on Streets B, C, D and E. No alley parking shall be allowed in Subarea 2. "No parking" signs shall be posted as appropriate in accordance with city standards. Parking details for this Subarea are detailed on plan sheets 6, 7, 13 and 14, with the Site Parking Data Table on Sheet 7. ADA accessible parking and bicycle parking spaces will be provided per City Code at the time of Final Development Plan. On-street parking located within Subarea 2 shall be for the use of all subareas.
- e. Cross access easements to the extent required for this subarea in relation to other subareas are subject to approval by the City Engineer and Law Director.
- f. Pedestrian connections shall be installed to connect this subarea with adjacent subareas and uses. Such paths and/or sidewalks are depicted on development plans and delineated with landscaping and hardscape materials. (see Sheet 9)

4. Architectural Design and Standards

Representative and illustrative examples of the architectural character of the townhomes in this subarea are depicted in the sample elevations attached to this application. Buildings in this subarea shall meet the following design requirements and shall be generally consistent with the architectural exhibits included with this application.

a. Color Palette: A mixed palette on a single building shall be carefully selected so all colors are harmonious with each other. High chroma colors are not permitted.

b. Exterior Colors:

- i. Siding colors. Natural earth tones and/or warm neutral colors, including white.
- ii. Trim Colors: Natural earth tones and/or warm neutral colors, including white. Complementary or contrasting siding color.
- iii. Shingle colors shall be from the color range of natural materials; such as, but not limited to wood shakes, slate, etc.

c. Approved Materials:

- i. Warm-tone brick, thin brick and/or brick veneer, cast stone, stone veneer, field stone, stucco stone, vinyl siding or trim with a thickness of .045 mm or greater, wood and cementitious or HardiPlank™ siding and trim, in any combination that allows for consistent architectural treatment and aesthetics. All building elevations shall be designed with similar building materials and lighting.
- ii. Aluminum or vinyl soffits, vents, eaves and fascia or other hard to reach or maintain elements. For horizontal vinyl elements, .05 mm thickness shall be used;
- iii. Roof materials: Dimensional architectural shingles, three-tab shingles, cedar shakes, tile, slate, synthetic slate, fiberglass shingles, asphaltic shingles or standing seam metal roofs may be used.
- iv. Roof:
 - 1. Pitched roofs with gabled or hipped ends are required with a slope equal to 5:12 or greater.
 - 2. Roof on secondary architectural features, such as bay windows, porches, stoops, etc., may have a roof pitch of 3:12 or greater.
 - 3. Minimum 8-inch overhangs are required.
- v. Wall Articulation/Fenestration.

1. In addition to using building elements to articulate the building mass, individual walls must be articulated with fenestration, pattern, or structural expression equally on all sides of each structure.
 2. The amount of fenestration shall be balanced with the amount of solid façade.
 3. Four-sided architecture is required. Buildings shall have a consistent finish on all four sides. Fenestration shall be proportional with building size and massing.
 4. Garages facing and abutting auto courtyards and alley ways shall have complimentary aesthetics and building materials as the primary structure, but no ornamental architecture is required.
5. Landscaping, Screening and Open Space:
- a. All landscaping shall meet the provisions of the Zoning Code except where varied herein.
 - b. Any portion of a lot that is not covered by buildings, drives or parking areas shall be landscaped with lawn as a minimum. Those areas that are designed as landscaped buffers, tree lawns, tree preservation, entry features, public or private green spaces or other landscaped features shall be maintained according to City Code standards.
 - c. See street tree and landscaping package for on-lot commitments. (See sheet 9 Open Space, Pedestrian Connectivity and Amenities Plan.)
 - d. The required Tree Survey is included with this application. Tree protection and/or replacement provisions:
 - i. The Preliminary Development Plans indicate the areas in which trees shall be saved and protected.
 - ii. The developer/builder shall make reasonable, good faith efforts to preserve existing healthy trees on site during construction.
 - e. Public and private open and green spaces located in Subarea 2 and characterizing the community are identified with their acreages and uses specified on Sheets 8, 9 and 12. Public space amenities allocated to this Subarea 2 and public space amenity calculations are identified on these exhibit sheets. Generally, an +/-1.3 acre open recreation

space, separate dog park, various seating areas, visual connective spaces and connective paths define this subarea. Open space areas may be utilized for stormwater management.

- f. The use of landscape elements such as arbors, benches, fountains, plazas, patios, planters and similar elements will be utilized to enhance the pedestrian scale and nature of the overall development and be created toward required public space amenities. These elements will be used to reinforce pedestrian walkways and compliment the character of the architecture. Such elements will be fully detailed at the final development plan stage.
- g. Proposed community entrance feature locations and character images are depicted on the development plans Sheet 10. Design of entry features shall be provided with the final development plan.
- h. All fencing must meet City Code provisions. No chain link shall be allowed on any lot.

6. Graphics, Signage, Lighting and Trash Collection:

- a. All graphics and signage for Subarea 2 shall conform to code unless otherwise approved. A comprehensive sign package shall be submitted separately for review and approval by the Planning and Zoning Commission prior to the issuance of any permit for permanent signage.
- b. See development plan Sheets 8 and 9 for decorative pedestrian light placement.
- c. Trash pickup for this subarea shall be privately contracted with a trash valet. The compactor site identified in Subarea 3 shall serve as a central trash compacting station with private hauling from that location.

C. Subarea 3 – Neighborhood Core

Subarea 3 consists of +/-5.1 acres internal to the site with private alleys and street access through Subarea 2 to public Street A and the planned extension of Wesley Boulevard (Private Street B).

1. Allowable uses – The following uses shall be allowed in Subarea 3.
 - a. Subarea 3 shall include not more than 72 multi-family dwelling units in several building configurations and offered for rent.

- i. Such multi-family dwelling units shall have a livable area ranging in square footage from 700 square feet and up to 1,300 square feet.
 - ii. Anticipated dwelling unit mix:
 - One bedroom 30% @ +/-700 average sf
 - Two bedrooms 60% @ +/-1,100 average sf
 - Three bedrooms 10% @ +/-1,300 average sf
 - b. The uses appurtenant to multi-family dwellings and those accessory and conditional uses related as specified under Code section 1147.01 for AR-3 uses and including but not limited to surface parking lots, detached garages, landscape/hardscape improvements, entry features, facilities, public and private streets and alleys, trash compactor, and utility and services facilities ancillary to residences.
 - c. A minimum of 50% of all units shall have garages or garage access. Detached or attached garages are permitted.
 - d. Multiple programmed open space and amenities totaling approximately 0.6 acres are detailed on development plan exhibits and may include but not be limited to outdoor recreation, central mailbox units and waste refuse area.
2. Density, Height, Lot and Setback Commitments:
- a. 72 total multi-family units on +/-5.1 acres or 14.1 dwellings units per acre.
 - b. Multi-family dwellings may include a mix of townhomes and/or stacked flat units or other configurations. The maximum building height shall be measured under the zoning code definition of height and shall be up to 60 feet.
 - c. There shall be a minimum 10-foot building set back from private Street C and 10-foot setback from alleys. There shall be a 15-foot pavement and building setback from the east property line.
 - d. Units shall share walls and separations between buildings where shown shall be not less than 16 feet.
 - e. There shall be a zero setback for building and pavement from Subarea 5.
3. Access, Parking and/or Traffic Related Commitments:
- a. Street access from the public street networks to Subarea 3 shall be provided via multiple access points to private Street "C" from alleys and parking lots. All access points are subject to review and approval by the City Engineer.
 - b. For the multi-family dwellings in this subarea, a minimum of 1.5 parking spaces per dwelling unit shall be provided. Private streets shall have a 20' drive aisle with an 8-foot wide by 22-foot long parallel parking space on both sides. Private streets shall be located within a 56-foot wide reserve. Private alleys shall have a 16-foot drive within a 20-foot wide reserve. For surface parking lots, parking spaces shall be 9 feet x 19 feet with 22-foot drive aisles.
 - c. Parallel parking shall be allowed on Street C adjacent to apartments in Subarea 3. "No parking" signs shall be posted as appropriate in accordance with city standards. Parking details for this Subarea are detailed on plan Sheets 6, 7, 13 and 14, with the Site Parking Data Table on Sheet 7. ADA accessible parking and bicycle parking spaces will be provided per City Code at the time of Final Development Plan. On-street parking located within Subarea 2 shall be for the use of all subareas.
 - d. Cross access easements to the extent required for this subarea in relation to other subareas are subject to approval by the City Law Director.
 - e. Pedestrian connections shall be installed to connect this subarea with adjacent subareas and uses. Such paths and/or sidewalks are depicted on development plans and delineated with landscaping and hardscape materials. (see Sheet 9).
4. Architectural Design and Standards:
- Representative and illustrative examples of the architectural character of the townhome buildings in this subarea are depicted in the sample elevations attached to this application. Buildings in this subarea shall meet the following design requirements and shall be generally consistent with the architectural exhibits included with this application.
- a. Color Palette: A mixed palette on a single building shall be carefully selected so all colors are harmonious with each other. High chroma colors are not permitted.
 - b. Exterior Colors:

- i. Siding colors. Natural earth tones and/or warm neutral colors, including white.
 - ii. Trim Colors: Natural earth tones and/or warm neutral colors, including white. Complementary or contrasting siding color.
 - iii. Shingle colors shall be from the color range of natural materials; such as, but not limited to wood shakes, slate, etc.
- c. Approved Materials:
- i. Warm-tone brick, thin brick and/or brick veneer, cast stone, stone veneer, field stone, stucco stone, vinyl siding or trim with a thickness of .045 mm or greater, wood and cementitious or HardiPlank™ siding and trim, in any combination that allows for consistent architectural treatment and aesthetics. All building elevations shall be designed with similar building materials and lighting.
 - ii. Aluminum or vinyl soffits, vents, eaves and fascia or other hard to reach or maintain elements. For horizontal vinyl elements, .05 mm thickness shall be used;
 - iii. Roof materials: Dimensional architectural shingles, three-tab shingles, cedar shakes, tile, slate, synthetic slate, fiberglass shingles, asphaltic shingles or standing seam metal roofs may be used.
 - iv. Roof:
 - 1. Pitched roofs with gabled or hipped ends are required with a slope equal to 5:12 or greater.
 - 2. Roof on secondary architectural features, such as bay windows, porches, stoops, etc., may have a roof pitch of 3:12 or greater.
 - 3. Minimum 8-inch overhangs are required.
 - v. Wall Articulation/Fenestration:
 - 1. In addition to using building elements to articulate the building mass, individual walls must be articulated with fenestration, pattern, or structural expression equally on all sides of each structure.
- 2. The amount of fenestration shall be balanced with the amount of solid façade.
 - 3. Buildings shall have a consistent finish on all sides facing public or private streets or drives. Rear facing side and/or those facing motor courtyards or alleyways shall have complimentary aesthetics as the primary faces of the buildings, but no ornamental architecture is required. Fenestration shall be proportional with building size and massing.
5. Landscaping, Screening and Open Space:
- a. All landscaping shall meet the provisions of the Zoning Code except where varied herein.
 - b. Any portion of a lot that is not covered by buildings, drives or parking areas shall be landscaped with lawn as a minimum. Those areas that are designed as landscaped buffers, tree lawns, tree preservation, entry features, public or private green spaces or other landscaped features shall be maintained according to City Code standards.
 - c. Street trees shall be provided at one tree per 40 linear feet with breaks as necessary for streetscape elements such as driveways, light fixtures, fire hydrants, etc.
 - d. The required Tree Survey is included with this application.
 - i. The Development Plans indicate the areas in which trees shall be saved and protected.
 - ii. The developer/builder shall make reasonable, good faith efforts to preserve existing healthy trees on site during construction.
 - e. A landscaping buffer consisting of a minimum of 8 evergreen trees, 6 feet in height at installation shall be planted between this subarea and the neighboring institutional facility to the east with a detailed landscape plan provided at the time of Final Development Plan. Surface parking lot screening and landscaping shall meet City Code requirements, including parking lot islands. Visual open space corners and green space connections are depicted on plan Sheet 9. All open spaces are to be planted with turf grass unless otherwise indicated.
 - f. Public and private open and green spaces located in Subarea 3 that characterize the aesthetics of the community are identified with their acreages and uses specified on Sheets 9 and 12. Public space amenities allocated to this Subarea 3 and public space amenity

calculations are identified on exhibit sheets. Generally, a 0.6 acre open recreation field, seating areas, a dog park, and other small and connecting green spaces are identified on Sheets 9 and 12 and characterize this subarea.

- g. Pedestrian walkways frame and connect this subarea and delineate it from the Tucker Creek subarea as depicted on plan Sheet 9. The use of landscape elements such as arbors, benches, fountains, plazas, patios, planters and similar elements may be utilized to enhance the pedestrian scale and nature of the overall development. These elements will be used to reinforce pedestrian walkways and compliment the character of the architecture. Such elements will be fully detailed at the final development plan stage.
- h. All fencing must meet City Code provisions. No chain link shall be allowed on any lot.

6. Graphics, Signage, Lighting and Trash Collection:

- a. All graphics and signage for Subarea 3 shall conform to code unless otherwise approved. A comprehensive sign package shall be submitted separately for review and approval by the Planning and Zoning Commission prior to the issuance of any permit for permanent signage.
- b. See development plan exhibits: Photometric Plan and sheet 9 for decorative pedestrian light placement.
- c. Neighborhood identification features are depicted on plan Sheet 10.
- d. Trash pick-up for this subarea shall be privately contracted with a trash valet. The compactor site identified in Subarea 3 shall serve as a central trash compacting station for Subareas 2 and 3 and potentially a portion of Subarea 4 with private hauling from that location.

D. Subarea 4 – High Street Mixed Use

Subarea 4 consists of +/-540 multi-family apartments, 60,000 square feet of commercial space and 25,000 square feet of medical office space on 11.4 acres. Subarea 4 fronts on North High Street, and borders Subarea 2 on the west, Larrimer Avenue and Longfellow Avenue on the north and United Methodist Church parking lots and facilities on the south.

1. Allowable uses – The following uses shall be allowed in Subarea 4.

- a. Subarea 4 shall include not more than 540 multi-family apartments in several building configurations and offered for rent.
 - i. Such multi-family apartments dwelling units shall range in livable square footage from +/-500 square feet to +/-1,300 square feet.
 - ii. Anticipated dwelling unit mix:
 - One bedroom 30% @ +/-500 average sf
 - Two bedrooms 60% @ +/-1,000 average sf
 - Three bedrooms 10% @ +/-1,300 average sf
- b. Commercial office/retail spaces of up to 60,000 square feet and divided into various buildings. Commercial uses shall include all those defined and allowed under the Zoning Code unless prohibited hereunder and may include but shall not be limited to:
 - i. Retail;
 - ii. Administrative, business, medical or professional services;
 - iii. Personal and professional services;
 - iv. Pharmacy with or without drive-up service;
 - v. Bank or financial services with or without drive-up service;
 - vi. Eating or drinking establishments with or without drive-through provided that menu signs are screened from view from the North High Street right of way;
 - vii. Medical offices; and,
 - viii. Hotel/conference center.
- c. Medical Office: One medical office building of up to 25,000 square feet to include uses such as but not limited to medical, health, wellness, fitness, urgent care, emergency medicine, laboratory, surgical, preventative care and medicine, in-patient or out-patient services, and pharmacy service uses.
- d. The uses appurtenant to multi-family apartments, commercial and office uses and those accessory and conditional uses related as specified under Code Section 1147.01 for A-3 uses and C-1, C-2 and C-3 uses

and including but not limited to surface parking lots, up to 5 level parking facilities, outdoor court games and/or lawn games, in ground swimming pool, restaurant, bar, community meeting rooms, fitness and/or wellness facilities, other community open spaces, walking paths, outdoor seating, dog park, landscape/hardscape improvements, entry features and signage, public and private streets and alleys, and utility facilities. Restaurant, retail or personal services uses shall be permitted within multi-family buildings.

- e. Multiple programmed open and amenities spaces amounting to 1.3 acres are detailed on Sheet 9 of the development plan, along with outdoor recreation, mail structures and pre-compaction trash processing/holding dumpster areas.
- f. The following uses shall be prohibited from this Subarea 4:

Blood and organ bank, crematory, funeral home and service, warehouse club, super center, automotive accessories, parts and tire stores, automobile and light truck dealers, automobile sales, leasing and rental, building materials and supply dealers, check cashing and loans, community food pantry, discount department stores, home centers mission/temporary shelters, motorcycle, boat and other motor vehicle dealer, motor vehicle accessories and parts dealers, outdoor power equipment stores, pawn brokers, recreational vehicle dealers, truck, utility trailer and RV (recreational vehicle) sales/rental/leasing/vending machine operators, automotive maintenance and repair, bowling centers, drive-in motion picture theatres, farm equipment and supply stores, animal shelter, amusement arcades, half-way house, tobacconist, telephone call centers, coin operated laundries.

2. Density, Height, Lot and Setback Commitments:

Multi-Family Apartments:

- a. 540 total apartments on +/-11.4 acres.
- b. Multi-family apartments buildings and garages may include a mix of building heights of up to five stories. The maximum building height for apartments and garages shall be 80 feet, as measured under the zoning code definition of height.
- c. Setbacks. There shall be a minimum 25 foot building setback for habitable buildings from North High Street, a 25 foot building and pavement setback from Longfellow Avenue, a 20 foot building and pavement setback from

Larrimer Street, and 10+/- foot building setbacks from private streets and a 10 foot building and pavement setback from the south property line.

- d. Interior or rear setbacks are varied backing to surface parking lots as shown on plans. Units shall share walls.

Commercial

- a. 60,000 square feet commercial/retail space.
- b. Commercial square footage may be allocated throughout the buildings in Subarea 4. The maximum building height shall be 80 under the zoning code definition of height.
- c. Setbacks. There shall be a minimum 25 foot building set back from North High Street, a 20 foot setback from Larrimer Street, and 10 foot setbacks from Streets B, E and F, and alleys.

Medical Office

- a. 25,000 square feet medical office.
- b. The maximum building height shall be 65 feet for medical office buildings under the zoning code definition of height.
- c. Setbacks. There shall be a minimum 25-foot building set back from North High Street, and a 10-foot setback from Street E and the southern property line.

3. Access, Parking and/or Traffic Related Commitments:

- a. The subarea is to be served by an extension of Wesley Boulevard to Longfellow Avenue, access from North High Street from Street E, and Street F which connects to Larrimer Avenue. Street access from the public street networks to Subarea 4 shall be provided via multiple access points to North High Street and Larrimer Avenue. All access points are subject to review and approval by the City Engineer.
- b. Private streets shall have a 20-foot drive aisle with an 8-foot wide by 22 foot-long parallel parking space on both sides. Private streets shall be located within a 56-foot wide reserve. Private alleys shall have a 16-foot drive within a 20-foot wide reserve. For surface parking lots, parking spaces shall be 9 feet x 19 inches feet with 22-foot drive aisles.
- c. Parking in this subarea is identified on the chart on Plan Sheets 6 and 7 with spaces allocated based on uses per the Site Parking Data Table on

Sheet 6. ADA accessible parking and bicycle parking spaces will be provided per City Code at the time of Final Development Plan.

- d. Parallel parking shall be allowed on Streets E and F. No alley or drive aisle parking shall be allowed. "No parking" signs shall be posted as appropriate in accordance with city standards.
- e. Cross access easements to the extent required for this subarea in relation to other subareas are subject to approval by the City Law Director.
- f. Pedestrian connections shall be installed to connect this subarea with adjacent subareas and uses. Such paths and/or sidewalks are depicted on development plans and delineated with landscaping and hardscape materials. (see Sheets 8 and 9)

4. Architectural Design and Standards

Representative and illustrative examples of the architectural character of the buildings in this subarea are depicted in the sample elevations attached to this application. Buildings in this subarea shall meet the following design requirements and shall be generally consistent with the architectural exhibits included with this application.

- a. Color Palette: The color palette shall be carefully selected so all colors are harmonious with each other. High chroma colors are not permitted.

b. Exterior Colors:

- i. Siding colors. Natural earth tones and/or warm neutral colors, including white.
- ii. Trim Colors: Natural earth tones and/or warm neutral colors, including white. Complementary or contrasting siding color.
- iii. Shingle colors shall be from the color range of natural materials; such as, but not limited to wood shakes, slate, etc.

c. Approved Materials:

- i. Warm-tone brick, thin brick and/or brick veneer, cast stone, stone veneer, field stone, stucco stone, wood and cementitious or HardiPlank™ and .045 mm thickness or greater vinyl siding or trim. Front elevations of buildings in this subarea shall include natural materials with the allowance for the use of vinyl siding and trim accents with a thickness of .045 mm or greater. On other elevations vinyl siding and trim accents with a

thickness of .045 or greater in any combination with other materials may be utilized that allows for consistent architectural treatment and aesthetic on all four building sides. All building elevations shall be designed with consistent lighting treatments.

- ii. Aluminum or vinyl soffits, vents, eaves and fascia or other hard to reach or maintain elements. For horizontal vinyl elements, .05 mm thickness shall be used;
- iii. Roof materials: Dimensional architectural shingles, three-tab shingles, cedar shakes, tile, slate, synthetic slate, fiberglass shingles, asphaltic shingles or standing seam metal roofs may be used.
- iv. Roof:
 - 1. Pitched roofs with a slope equal to 5:12 or greater are required for main roofs. Roofs on secondary architectural features such as bay windows, porches, stoops, etc. may have a roof pitch 3:12 or greater.
 - 2. Minimum 8-inch overhangs are required for pitched roofs.
 - 3. With the use of flat commercial roof, parapets shall be required in order to screen rooftop mechanical equipment.

v. Wall Articulation/Fenestration:

- 1. In addition to using building elements to articulate the building mass, individual walls must be articulated with fenestration, pattern, or structural expression equally on all sides of each apartment building structure. Garages shall meet pattern or structural expression requirements.
- 2. The amount of fenestration shall be balanced with the amount of solid façade for apartment buildings.
- 3. Four-sided architecture is required for apartments. Apartment buildings shall have a consistent finish on all four sides. Fenestration shall be proportional with building size and massing for apartment buildings.

5. Landscaping, Screening and Open Space

- a. All landscaping shall meet the provisions of the Zoning Code except where varied herein.

- b. Any portion of a lot that is not covered by buildings, drives or parking areas shall be landscaped with lawn as a minimum. Those areas that are designed as landscaped buffers, tree lawns, tree preservation, entry features, public or private green spaces or other landscaped features shall be maintained according to City Code standards.
 - c. The required Tree Survey is included with this application.
 - i. The Development Plans indicate the areas in which trees shall be saved and protected.
 - ii. The developer/builder shall make reasonable, good faith efforts to preserve existing healthy trees on site during construction.
 - d. Surface parking lot screening and landscaping shall meet City Code requirements, including parking lot islands. Visual open space corners and green space connections are depicted on plan Sheet 9. All open spaces are to be planted with turf grass unless otherwise indicated.
 - e. Public and private open and green spaces located in subarea 4 and characterizing the community are identified with their acreages and uses specified on Sheets 8, 9 and 12. Public space amenities allocated to this Subarea 4 and public space amenity calculations are identified on Sheet 9. Generally, a 0.3 acre open recreation field, seating areas, 0.7 acre active recreation space, and a 0.2 acre central green between apartment building elements are planned and characterize this subarea.
 - f. Pedestrian walkways frame and connect this subarea as depicted on plan Sheet 9. The use of landscape and streetscape elements such as benches, plazas, patios, planters and similar elements will be utilized to enhance the pedestrian scale and nature of the overall development. These elements will be used to reinforce pedestrian walkways and compliment the character of the architecture. Such elements will be fully detailed at the final development plan stage.
 - g. All fencing must meet City Code provisions. No chain link shall be allowed on any lot.
6. Graphics, Signage, Lighting and Trash Collection:
- a. All graphics and signage for Subarea 4 shall conform to code unless otherwise approved. A comprehensive sign package shall be submitted separately for review and approval by the Planning and Zoning Commission prior to the issuance of any permit for permanent signage.

- b. See development plan Sheets 8 and 9 for decorative pedestrian lighting.
- c. Community identification features are depicted on plan Sheets 9 and 12.
- d. Trash pick-up for this subarea shall be privately contracted with a trash valet for residential. Separate trash service in the case of commercial or medical uses shall be required.

E. Subarea 5 – Tucker Creek Preserve

Subarea 5, the Tucker Creek Preserve, includes a storm water management basin, as well as +/- 6.4 acres of trees, foliage, the existing water course and stream bank commonly known as Tucker Creek, +/- 5.7 acres of which are to be set aside and preserved as a natural area and with a permanent conservation easement, and/or conveyed to the city for public ownership and use with approved credits. (Note: The portion of Subarea 5 that is to include a stormwater basin is not proposed to be conveyed for public ownership.) No ongoing development activities may take place within this Subarea 5, with the exception of initial construction activities, path access and utility crossings and maintenance, as well as work related to the installation of the stormwater basin and related facilities shown on plan exhibits to serve and be maintained by the homeowners' associations, as approved and permitted by the City with appropriate easements and other appropriate regulatory agencies. Any initial construction or development activities and utility crossings shall involve returning such impacted areas to a natural state as much as possible with oversight by the City Engineer. As an alternative to the proposed conveyance to the city, this Subarea 5 acreage may be considered for conveyance to a public park system operator or other conservation organization with credits against fees pursuant to section 1174.04 (c)(2)(A) and (B) and (3)(B) and (C).

V. 1174.05 OTHER DEVELOPMENT STANDARDS

1. Design Regulations – See design standards within individual subareas of text and attached plan sheet details.
2. Traffic Commitments – To be determined and finalized at the time of Final Development Plan and based on the required Traffic Impact Study and discussions/approval of the City Engineering Department. At the time of the Preliminary Development Plan filing, Traffic Impact Study findings include the following recommendations and/or changes to traffic regulation:
 - a. Install a new traffic signal at the High Street/East access when warranted, with the contribution from this development being based on the proportionate share of traffic flow to the intersection. This signalized access should be located approximately midway between

existing signals at High Street/Worthington Galena Road and High Street/Larrimer Avenue.

- b. Operate the High Street/East Access signal semi-actuated with fire preemption and remove the exiting fire signal currently in place to control southbound traffic.
- c. Revise pavement marking on High Street to provide a 100 foot long northbound left turn lane at East Access point.
- d. Revise pavement marking at High Street/Worthington Galena Road intersection to extend the length of existing northbound and southbound left turn lanes to 200 feet each.
- e. Modify signs, pavement marking and signal operation to permit full movements eastbound and westbound (left turn lane, right turn and through) at High Street/Worthington Galena Road intersection.

3. Parking Summary – See Plan Sheet 7 and Site Parking Data Table.

VI. 1705 GENERAL REQUIREMENTS:

1. Tree Preservation and Replacement

City of Worthington, Ohio, Codified Ordinance Section 1174.05(c)(2)(B) Development Standards- General Requirements: Natural Features, requires all healthy trees 6" caliper or larger be retained or replaced with a total tree trunk equal in diameter to the removed tree.

The applicant has prepared a tree survey of all trees (deciduous and evergreen) 6 inches caliper or larger, with species and condition noted. Trees were measured per industry standards - diameter at breast height. Based on the applicant's site plan, the Tree Survey Table provides a tabulation of anticipated trees to be removed and a tabulation of all unhealthy trees (unhealthy, poor or dead condition). Total tree caliper to be removed is 6,264 inches, less unhealthy, dead and poor species of 1,069 inches yields 5,195 inches of replacement required. Tree removal is a total of 365 trees: 29 dead, 28 poor condition, 2 ash trees and 306 additional trees to be removed. The applicant intends to provide as many replacement trees on site as practical and per acceptable industry standards and as allowed to facilitate healthy growth.

On the Open Space, Pedestrian Connectivity and Amenities Plan, approximately 5.7 acres of treed area along Tucker Creek will be maintained as a "Natural Features Preservation" area per code and conveyed to the city.

Tree Replacement:

Tree replacement shall be provided by the following means with additional options for tree replacement provided with a detailed landscape plan at Final Development Plan, as necessary:

- Street Trees: Street trees will be provided on all private or public streets at a ratio of 1 tree per 40 linear feet of street. Trees may be equally spaced or grouped. All street trees shall be a minimum 3" caliper at installation. (Approximately 284 trees at 3 inches = 852 inches)
- Alley/Parking Lot Island Trees: A minimum of 30 alley/parking lot trees shall be planted with a minimum of 2.5 inches caliper at installation. (30 trees at 2.5 inches = 75 inches)
- Open Space Tree Plantings: A minimum of 80 trees shall be planted in open space areas. (80 trees at 2.5 inches = 200 inches)
- Buffer Plantings: A minimum of 10 trees (proposed combination of ornamental trees and shade trees) shall be provided between the storm water pond along Evening Street and apartment units in Subarea 2 (10 trees at 2.5 inches = 25 inches). A minimum of 8 evergreen trees shall be provided between the east property line of Subarea 3 and the Assisted Living/Nursing Home use (8 trees (6 foot ht.) at 3 inches = 24 inches.)
- Other Locations: Other on-site or off-site locations acceptable to the City's Service and Engineering Department, with such placement credited against applicable fee in lieu payments. The applicant shall work in good faith with city departmental staff to find off-site tree replacement locations as follows: Replacement trees can be located in off-site roadways, such as parkway trees or median plantings, at locations acceptable to the City's Service and Engineering Department. Replacement trees can be located in off-site parklands in locations acceptable to the City's Parks and Recreation Department. Replacement trees can be located in other off-site public property locations in acceptable locations as determined by the appropriate city departments. Areas in close proximity to the LC-Worthington/UMCH site and to locations with the most visibility to Worthington residents shall be given the highest priority for consideration for tree replacement by city departments under this plan.

Tree replacement required under this planned district text is as follows, after applied credits as detailed above:

Caliper Inches of Tree Replacement Required:	5,195 inches
Less Caliper Inches of Replacement Trees (detailed above)	1,176 inches
Balance of Caliper Inches of Tree Replacement Required	4,019 inches

The "Balance of Caliper Inches of Tree Replacement Required" which is 4,019 inches based on the number credited after application of the first four bullets above is counted on a basis of \$150 per caliper inch (\$554,400) and such amount shall be credited against the dedication of Tucker Creek Preserve acreage to be considered by City Council as a proposed substitution and waiver of the code based tree replacement fee in lieu standard that would be otherwise applicable to this site.(See rationale for crediting below.) It should be noted that at this point, the target credit number is only an estimate, and the need for crediting would be adjusted if the applicant and city agree to off-site locations for replacement trees as outlined above.

Tree Replacement Standards:

Tree replacement shall meet the following standards:

- Street Trees shall be a minimum of 3 inch caliper at installation.
- Deciduous Shade Trees shall be a minimum of 2.5 inch caliper at installation.
- Ornamental Trees shall be a minimum of 1.5 inch caliper at install for single stem or 6 foot height at install for multi-stem. Multi-stem tree caliper inches shall be credited for the aggregate total of all trunks.
- Evergreen Trees shall be 6-foot height at installation.
 - A 6-foot tall evergreen tree shall count for 3 caliper inches.
 - For every foot in height greater than 6 feet in height, an additional 2 caliper inches shall be added. (e.g. A 7-foot tall evergreen = 5 caliper inches, e.g. A 8-foot tall evergreen = 7 caliper inches)
- The dedication of Tucker Creek Preserve may be counted toward the fee in lieu for tree replacements. See Public Area Payments Section.
- Fee-in-lieu for Tree Replacement and/or the number of trees replaced off-site shall be based on a \$150 per caliper inch standard as proposed for substitution and waiver approval by City Council for this site only.

Rationale: The unique location of trees on this site makes it impossible to replace all code required caliper inches on site in a healthy manner and for optimal tree growth and survival. Full on-site replacement is not feasible and would result in crowding on the site. The code standard provision for fee in lieu of replacement as written would operate as an unreasonable burden on the property if the fee in lieu is paid, and, in any case, whether such fee is paid or replacement of such caliper inches occurs off-site, there is no nexus to benefit the property. This raises fairness and legal questions under Ohio impact fee law. Therefore, the

applicant proposes a fee in lieu and/or a more reasonable off-site replacement value standard of \$150 per caliper inch, combined with a crediting against the value of both trees preserved within Tucker Creek Preserve and the Tucker Creek land conveyance to the city as a substitution and waiver of section 1174.05 (c)(2)(B). The applicant is committed to a reasonable and balanced tree replacement standard that includes on-site replacement, off-site replacement, and crediting in order to meet the spirit and intent of the code, while resulting in fairness. The applicant will work in good faith with city departments to find other off-site replacement locations on public lands, which would reduce the amount of crediting taken against the proposed Tucker Creek Preserve conveyance. However, based on the number of trees to be preserved, the number of trees preserved within Tucker Creek Preserve and the value of Tucker Creek Preserve as a public donation, crediting to off-set fees is reasonable and appropriate.

2. Public Area Payments

City of Worthington, Ohio, Codified Ordinance Section 1174.05(c)(3) *Public Area Payments* requires the following:

- The developer of commercial or industrial space created as part of a PUD to make a cash payment to the City in the amount of one hundred dollars (\$100.00) per 1000 gross square feet of new or expanded commercial or industrial space for deposit in the Special Parks Fund.
- The developer of Dwelling Units created as part of a PUD shall make a cash payment to the City in the amount of two hundred fifty dollars (\$250.00) per each new Dwelling Unit created for deposit in the Special Parks Fund.

The proposed plan provides the following uses:

- Commercial: 85,000 sf ($85,000/1000 = 85 \times \$100 = \$8,500$)
- Residential: 24 Single Family Lots, 706 Multi-Family Units ($730 \times \$250 = \$182,500$)

Total Required Public Area Payment: \$191,000

Public Area Payment:

- The developer shall receive a credit for the Public Area Payment required through the dedication of +/- 5.7 acres to the City of Worthington for the preservation of Tucker Creek per code section 1174.05(c)(3)(A) and upon such determination by City Council, such credit shall be calculated as follows:
 - Property Value per Franklin County Auditor: \$6,263,000 (As of 9/14/20)

- Price per Acre: \$165,688 (\$6,263,000/37.8 acres)
- Credit for Tucker Creek Preservation area: \$944,422 (5.7 x \$165,688)
- The credit balance to the developer from the Tucker Creek Preservation and Dedication after the Public Area Payment is \$753,422 (\$944,422 - \$191,000)
- This credit may be utilized toward tree replacement fees or other fees or assessments as approved by Council.

Rationale: The Comprehensive Plan states that this site is to be considered as a whole, not in individual components or sections. The applicant believes, based upon the reasons articulated in the Comprehensive Plan that the value of the Tucker Creek proposed preserve as conservation area to be dedicated to public use is well beyond the code calculated public area payments. In addition, the development provides many recreation and passive outdoor gathering opportunities for its own residents and will maintain such amenities, taking a significant burden off the existing city park system.

3. Public Space Amenities

City of Worthington, Ohio, Codified Ordinance Section 1175.05 (c) (3) Public Space Amenities requires a minimum of one Public Space Amenity as approved by the Municipal Planning Commission for every five-thousand (5000) square feet of gross floor area of multiple family dwelling, commercial or industrial space that is new in the PUD.

The anticipated Public Amenity Space calculations for this proposal are:

PUBLIC SPACE AMENITY CALCULATION			
BUILDNG TYPE	UNITS (Approximate)	GROSS FLOOR AREA PER UNIT MIN. (SF) (Approx)	GROSS FLOOR AREA PER TYPE MIN. (SF)
Townhomes- Subarea 2	94	1000	94,000
Apartments - Subarea 3	72		
Anticipated Mix			
1 Bed (30%)	22	700	15,400
2 Bed (60%)	43	1100	47,300
3 Bed (10%)	7	1300	9,100
Apartments- Subarea 4	540		
Anticipated Mix			
1 Bed (30%)	162	500	81,000
2 Bed (60%)	324	1000	324,000
3 Bed (10%)	54	1300	70,200
Commercial			
Commercial	1	60000	60,000
Medical Office	1	25000	25,000
Total			726,000
1 Public Space Amenity per 5,000 SF Gross Floor Area of Multi-Family			5,000
Total Public Space Amenities Required			145

The applicant proposes the following public space amenities and provides the following calculations for open space and public amenities per code requirements on exhibit sheet 9 for the PUD. The list is not intended to be all inclusive. Modifications to the amenity and additional amenities may be added at time of Final Development Plan. Each amenity listed will be credited as one public amenity space based on the descriptions in the exhibit sheet. The Open Space, Pedestrian Connectivity and Amenities Plan sheet 9 provides a Summary Chart and identification of the proposed Public Space Amenities. See exhibit sheet 9.

VII. 1174.06 Other Preliminary Plan Requirements

1174.06 (11) Provision of water, sanitary sewer, surface drainage, and utility facilities, etc. –The development will be serviced by the existing available City of Worthington water/sewer lines and connections thereto. See exhibit plan Sheets 19, 20, 21, and 22 for storm water facilities, sanitary sewer plans and water main lines respectively.

The following is a summary of the proposed utilities:

Sanitary Sewer

Sanitary sewer service will be provided by the City of Worthington. There is an existing 12" sanitary sewer (C-1276) located along the south property line. An existing 10" sanitary sewer line (City of Worthington) extends north into the site from the 12" sewer. The existing 10" & 12" sewer lines are of sufficient size and capacity to handle the anticipated wastewater volumes of the proposed development (24 single family homes, 706 units, 60,000 SF of commercial, and 25,000 SF of medical office). The proposed sanitary sewer services are designed to City of Columbus and Ohio EPA standards.

Construction will begin with single-family development and the commercial/office uses fronting High Street and proceed subject to market conditions.

1174.06 (17) HOA, Deed Restrictions. (See attached)

Water

Water service will be provided by the City of Worthington. The proposed taps are into the existing 12" water line (WO0066_003) located along N. High Street along the East side of the site, the existing 12" water line (WO0148_002) located along Wesley Blvd along the southeast side of the site, the existing 6" water line (WO0024_002) located along Longfellow Ave along the north side of the site, and the existing 6" water line (WO0016_003) located along Evening St along the southwest side of the site. Public water lines will be installed to connect the existing water lines from Wesley Blvd to Longfellow Ave and Evening St to Longfellow Ave. Private taps/meters will be installed for private domestic and fire services for Subareas 2, 3, & 4. The water lines will be constructed to service the development for domestic and fire protection uses.

Stormwater

Stormwater management for this site will be provided by a wet detention basin for Subarea 1 along the southwest property line. Stormwater storage vaults and surface detention facilities will be used with Subarea 2, 3, & 4 located within open spaces and parking areas. A storm sewer system will be constructed to collect and outlet stormwater from the proposed development to the existing Tucker Creek along the south property line. The proposed stormwater system is designed to City of Columbus and Ohio EPA standards.

1174.06 (13) Proposed easements, cross access easements, shared parking arrangements, reciprocal utility and access easements between subareas are to be finalized at the time of Final Development Plan, and shall be consistent with easements as previously utilized, reviewed and approved by the City Engineering Department and in a form approved by the City Law Director.

1174.06 (16) Phasing Plan. Phasing plans will be developed based on zoning approval and finalized at the time of Final Development Plan submission.

Utility Feasibility Summary
Lifestyle Communities – UMCH
City of Worthington, Franklin County
09/12/2019

The following is a summary of the proposed utilities:

Sanitary Sewer

Sanitary sewer service will be provided by the City of Worthington. There is an existing 12" sanitary sewer (C-1276/5-268(431.924)) located along the south property line. An existing 10" sanitary sewer line (City of Worthington) extends north into the site from the 12" sewer. The existing 10" & 12" sewer are of sufficient size and capacity to handle the anticipated wastewater volumes of the proposed development (19 single family homes, 706 units, 60,000 SF of commercial, and 25,000 SF of medical office). The proposed sanitary sewer mainline and service are designed to City of Worthington, City of Columbus, and Ohio EPA standards.

Water

Water service will be provided by the City of Worthington. The proposed connections are into the existing 12" water line (WO0066) located along N. High Street along the East side of the site, the existing 12" water line (WO0148) located along Wesley Blvd along the southeast side of the site, the existing 6" water line (WO0024) located along Longfellow Ave along the north side of the site, and the existing 6" water line (WO0016) located along Evening St along the southwest side of the site. Removal and relocation of public water line will connect the existing water lines from Wesley Blvd to Longfellow Ave along Street B (Private). Public water line will be installed along street A (Public) from Evening St to Longfellow Ave. Private taps/meters will be installed for private domestic and fire services for Subareas 2, 3, & 4. The water lines will be constructed to service the development for domestic and fire protection uses. The proposed water system is designed to City of Worthington, City of Columbus, and Ohio EPA standards.

Stormwater

Stormwater management for this site will be provided by a wet detention facility for Subarea 1 along the southwest property line. Underground storage and surface detention facilities will be used with Subarea 2, 3, & 4 located within open spaces and parking areas. A storm sewer system will be constructed to collect and outlet stormwater from the proposed development to the existing Tucker Creek along the south property line. The proposed stormwater system is designed to, City of Worthington and Ohio EPA standards.

September 13, 2019

Daniel W. Whited, PE
Director of Service and Engineering
City of Worthington
380 Highland Avenue
Worthington, Ohio 43085

Subject: United Methodist Children's Home
Traffic Impact Study

Dear Mr. Whited,

We submit this Traffic Impact Study (TIS) on behalf of the applicant for redevelopment of the United Methodist Children's Home (UMCH) site. High Street, Larrimer Avenue, Longfellow Avenue, and Evening Street surround the UMCH site as shown in **Figure 1** and provide multiple points of access. This study was prepared in accordance with a Memorandum of Understanding (MOU) dated April 26, 2018 and approval comments from the City's engineering consultant dated May 9, 2018. The MOU and City response are attached for reference.

Figure 1 Location Map



Proposed Development & Access Plan

The proposed redevelopment aligns with the mixed-use vision of the city's Comprehensive Plan including integration of the site into the existing street network surrounding it. Redevelopment includes General Commercial uses of 60,000 square feet (SF), assumed for this study to split 30,000 SF of retail use and 30,000 SF of general office use. Other site uses studied include 35,000 SF of medical office (reduced to 25,000 SF after completion of this study) and a mix of 19 single-family detached residences, 166 townhouses and 540 mid-rise multi-family homes. The attached site plan shows the well-distributed access points available to the site via North High Street, Larrimer Avenue, Longfellow Avenue and Evening Street.

United Methodist Children's Home
Traffic Impact Study

September 13, 2019

Study Area

In addition to site access points, we analyzed the following intersections that define the Study Area in accordance with the approved MOU for this project:

1. High Street/Dublin-Granville Road
2. High Street/Wesley Boulevard/Worthington-Galena Road
3. High Street/Larrimer Avenue
4. High Street/Wilson Bridge Road
5. Evening Street/Dublin Granville Road
6. Evening Street/Highgate Avenue
7. Evening Street/Longfellow Avenue
8. Larrimer Avenue/Longfellow Avenue
9. Worthington Galena Road/Crandall Drive

Data Collection

EMH&T completed weekday peak-hour turning movement counts in early November, 2018 at Study Area intersections in the High Street and Dublin-Granville Road corridors. Record count data established traffic volumes at internal, neighborhood street intersections. The list below summarizes count locations and observation periods:

Count 7-9 AM/4-6 PM

1. High Street/Dublin-Granville Road
2. High Street/Wesley Boulevard
3. High Street/Larrimer Avenue
4. Evening Street/Dublin Granville Road
5. Evening Street/Highgate Avenue
6. Evening Street/Longfellow Avenue

Count 1 hour in AM and 1 hour in PM

1. High Street/North Street
2. Evening Street/Stafford Avenue
3. Evening Street/North Street
4. Evening Street/Greenbriar Court
5. Larrimer Avenue/Longfellow Avenue
6. Worthington-Galena Road/Crandall Drive

We derived traffic volumes for the High Street/Wilson Bridge Road intersection from record counts and the Ohio Department of Transportation certified traffic forecast for FRA-270-22.42. Detailed count tabulations are attached and peak-hour turning movement volumes are shown on the traffic volume plates attached to this TIS.

Trip Generation

We projected site generated trip ends using data and methodology contained in the [Trip Generation Manual](#), 10th Edition (Institute of Transportation Engineers, 2017). Morning and afternoon peak hour traffic volumes were estimated using trip generation rates published for ITE land use codes 210 (Single Family Housing), 220 (Multi-family Housing, Low Rise), 221 (Multi-Family, Mid-Rise), 710 (General Office), 720 (Medical-Dental Office Building), and 820 (Shopping Center). Pass-by trips and internal trip capture was determined from the [Trip Generation Manual User's Guide and Handbook](#), 9th Edition (Institute of Transportation Engineers, 2012).

Pass-by trips represent vehicles diverted from the existing traffic stream into the site and are therefore not new to the roadway. The only proposed land use with pass-by trips is the retail component which draws 34% of its trips from the existing traffic stream during the PM peak hour. Internal trip capture reduces new trips slightly to account for trips with more than one destination within a multi-use site. Internal trip capture was limited to retail, general office and residential land uses and reduced PM peak trips loaded to the existing street system by about 10% overall. **Table 1** summarizes trip generation calculations prior to reducing for internal trip capture and additional detailed calculations are attached.

Table 1: Trip Generation

Land Use	Square Feet or Units	ITE Code	Time Period	ITE Formula	Total Trips	Trips Entering	Trips Exiting
Single Family - Detached	19 units	210	ADT	$\ln(T)=0.92\ln(x)+2.71$	226	113	113
			AM Peak	$T=0.71(x)+4.8$	18	5	13
			PM Peak	$\ln(T)=0.96\ln(x)+0.2$	21	13	8
Multifamily Housing Low-Rise (One or two floors)	166 units	220	ADT	$T=7.56(x) - 40.86$	1,214	607	607
			AM Peak	$\ln(T)=0.95\ln(x)-0.51$	77	18	59
			PM Peak	$\ln(T)=0.89\ln(x)-0.02$	93	59	34
Multifamily Housing Mid-Rise (3-10 floors)	540 units	221	ADT	$T=5.45(x) - 1.75$	2,942	1,471	1,471
			AM Peak	$\ln(T)=0.98\ln(x)-0.98$	179	47	132
			PM Peak	$\ln(T)=0.96\ln(x)-0.63$	224	137	87
Medical-Dental Office	35,000 sf	720	ADT	$T=38.42(x) - 87.62$	1,258	629	629
			AM Peak	$\ln(T)=0.89\ln(x)+1.31$	88	69	19
			PM Peak	$T=3.39(x)+2.02$	121	34	87
Shopping Center	30,000 sf	820	ADT	$\ln(T)=0.68\ln(x)+5.57$	2,652	1,326	1,326
			AM Peak	$T=0.5(x)+151.78$	167	See Below	
			PM Peak	$\ln(T)=0.74\ln(x)+2.89$	223	See Below	
Office	30,000 sf	710	100% AM Primary Trips		167	104	63
			0% AM Pass-By Trips		0	0	0
			66% PM Primary Trips		147	71	76
			34% PM Pass-By Trips		76	38	38

Trip Distribution and Assignment

This study assigned site generated traffic volumes to the surrounding street system based on observed traffic patterns and assessment of area characteristics. We applied the following gateway distribution to site generated trips in order to assign those trips to the surrounding street system. Two values are given(X%/Y%). The first (X%) is the distribution applied to residential land uses and the second (Y%) was applied to commercial land uses, i.e. retail, office and medical office.

Trip Distribution (residential/non-residential)

- 32%/27% to-from Dublin-Granville Road west of Evening Street
- 18%/19% to-from High Street south of Dublin-Granville Road
- 15%/12% to-from High Street north of Wilson Bridge Road
- 13%/16% to-from Dublin-Granville Road east of High Street
- 6%/7% to-from Worthington-Galena Road east of High Street
- 5%/3% to-from Wilson Bridge Road west of High Street
- 4%/3% to-from Wilson Bridge Road east of High Street
- 3%/2% to-from Evening Street south of Dublin-Granville Road
- 2%/2% to-from North Street east of High Street
- 2%/2% to-from Crandall Drive east of High Street
- 0%/2% to-from Larrimer Avenue west of Hayhurst Street
- 0%/2% to-from Longfellow Avenue west of Evening Street
- 0%/2% to-from Evening Street north of Longfellow Avenue
- 0%/1% to-from Highgate Avenue west of Evening Street

Traffic Projections

We combined traffic volumes generated by the proposed redevelopment with background traffic volumes to establish opening day (2019) and design year (2029) full build traffic volumes for use in traffic analyses. We projected counted traffic volumes to opening day and horizon year conditions by application of annual growth factors to account for background growth not associated with site development. We obtained linear, annual growth rates from the Mid-Ohio Regional Planning Commission (MORPC) as outlined below and further detailed in the attachments.

Linear Annual Background Growth Rates

- 1%-High Street north of Worthington-Galena Road
- 1%-High Street from North Street to Worthington-Galena Road
- 1%-Worthington-Galena Road east of High Street
- 1%-Wesley Boulevard west of High Street
- 0.75%-High Street south of North Street
- 0.50%-Dublin-Granville Road west of High Street
- 0.50%-Dublin-Granville Road east of High Street

Traffic Analyses

Traffic Signal Warrants

We evaluated the proposed access to High Street located between Larrimer Avenue and Wesley Boulevard for signalization under full site build conditions. This study assessed traffic signal warrants using thresholds established by the Ohio Manual of Uniform Traffic Control Devices § 4C (Ohio Department of Transportation) (OMUTCD). Signal warrant evaluation required conversion of AM and PM peak hour volumes calculated for the site, and observed on High Street, to hourly volumes (7:00 AM-7:00 PM) for comparison to signal warrant criteria that must be met on a sustained basis over four to eight hours.

We determined the relationship between off-peak, hourly traffic volumes and the AM and PM peak-hour volumes calculated for this study from two sets of count data. One is an ODOT 24-hour count on N High Street north of Wilson Bridge Road dated December 7, 2016. The second set of count data is a 24-hour machine count on Larrimer Avenue between High Street and Longfellow Avenue dated April 16, 2015. We used the 24-hour High Street count to factor peak hour, calculated volumes on High Street and we used the 24-hour Larrimer Avenue count to factor peak hour, calculated volumes projected on the proposed site access to High Street.

This study compared the hourly approach volumes calculated for the site access intersection at High Street to volume criteria specified in the OMUTCD for Warrant 1 (Eight-Hour Warrant), Warrant 2 (Four-Hour Warrant), and Warrant 3 (Peak Hour Warrant). We assessed warrant results with, and without, a right turn reduction factor applied in accordance with the Traffic Engineering Manual § 402-5 (Ohio Department of Transportation). The results of the analysis show that the High Street/Hight Street East Access will meet warrants 1, 2, and 3 in both 2019 and 2029 Build conditions but only without a right turn volume reduction.

Intersection Capacity Analyses

We used Synchro 10 employing HCM 6th edition methodology to evaluate operational characteristics of Study Area intersections. We also completed a Synchro/SimTraffic model for the entire Study Area focused on queue modeling in the High Street corridor and review of operations in the High Street/Worthington-Galena Road and Worthington-Galena Road/Crandall Drive intersections considering the close intersection spacing and alignment challenges in this area. Level of Service (LOS) D for the overall intersection is the threshold of acceptable performance for this study in accordance with the approved MOU. **Table 2** summarizes the results of capacity analyses.

Table 2 - Summary of Capacity Analysis

Time Period	Year	Scenario	Conditions	WEST	BIRTH	WEST	NORTH	WEST	BIRTH	WEST	BIRTH	WEST	BIRTH	TOTAL	
N High St / SR-161															
AM Peak Hour	2019	No Build	Existing Conditions	C/23.5 / D/49.3	E/49.3	C/23.5	E/48.0	C/15.4	E/18.8	C/18.2	E/18.2	C/21.2	E/21.2	C/31.8	
	2029	No Build	Existing Conditions	C/23.5 / D/49.3	E/49.3	C/23.1	E/56.6	C/23.1	E/23.5	C/21.8	E/23.5	C/27.9	E/25.1	C/31.8	
PM Peak Hour	2019	No Build	Existing Conditions	C/23.0 / D/47.3	E/47.3	C/23.0	E/48.0	C/17.4	E/17.4	C/20.2	E/24.4	C/21.2	E/21.2	C/31.8	
	2029	No Build	Existing Conditions	C/23.0 / D/47.3	E/47.3	C/23.0	E/48.0	C/17.4	E/17.4	C/20.2	E/24.4	C/21.2	E/21.2	C/31.8	
N High St / Worthington Galena Rd															
AM Peak Hour	2019	No Build	Existing Conditions	C/24.8 / C/21.8	E/21.8	C/29.2	E/23.4	C/21.0	A/2.0	A/3.0	A/7.0	A/3.3	A/3.3	A/10.0	
	2029	No Build	Existing Conditions	C/24.5 / C/21.2	E/21.2	C/29.3	E/23.1	C/21.9	A/2.6	A/3.9	A/6.9	A/4.0	A/4.0	A/9.2	
PM Peak Hour	2019	No Build	Existing Conditions	C/23.5 / C/20.8	E/20.8	C/30.2	E/22.0	C/22.1	A/3.2	A/4.4	A/7.0	A/5.4	A/5.4	A/10.2	
	2029	No Build	Existing Conditions	C/23.5 / C/20.8	E/20.8	C/30.2	E/22.0	C/21.8	A/3.2	A/4.4	A/6.4	A/5.0	A/5.0	A/10.2	
H High St / Larrimer Ave															
AM Peak Hour	2019	No Build	Existing Conditions	C/24.8 / C/24.5	E/24.5	-	-	A/2.0	A/0.2	-	-	A/2.0	A/2.0	A/12.2	
	2029	No Build	Existing Conditions	C/24.8 / C/24.5	E/24.5	-	-	A/2.1	A/0.3	-	-	A/3.1	A/3.0	A/12.0	
PM Peak Hour	2019	No Build	Existing Conditions	C/23.7 / C/28.0	E/28.0	-	-	A/2.5	A/0.5	-	-	A/3.2	A/3.2	A/12.2	
	2029	No Build	Existing Conditions	C/23.7 / C/28.0	E/28.0	-	-	A/2.6	A/0.5	-	-	A/3.2	A/3.2	A/12.2	
N High St / Wilson Bridge Rd															
AM Peak Hour	2019	No Build	Existing Conditions	C/24.9 / E/95.1	E/95.1	C/20.6	E/43.0	C/31.1	C/25.1	C/27.6	C/20.0	F/96.3	C/21.1	E/18.8	
	2029	No Build	Existing Conditions	C/26.5 / E/105.5	E/105.5	C/20.5	E/43.1	C/24.2	C/28.1	C/20.7	F/93.4	C/22.1	E/19.0	F/9.9	
PM Peak Hour	2019	No Build	Existing Conditions	C/27.0 / E/64.8	E/64.8	C/29.3	E/49.0	C/28.4	C/28.4	C/29.3	E/69.0	C/29.3	C/26.4	E/19.5	F/7.0
	2029	No Build	Existing Conditions	C/27.0 / E/64.8	E/64.8	C/29.3	E/49.0	C/28.4	C/28.4	C/29.3	E/69.0	C/29.3	C/26.4	E/19.5	F/7.0
SR-161 / Evening St															
AM Peak Hour	2019	No Build	Existing Conditions	C/24.9 / E/95.1	E/95.1	C/22.6	E/43.0	C/31.1	C/25.1	C/27.6	C/20.0	F/96.3	C/21.1	E/18.8	
	2029	No Build	Existing Conditions	C/26.5 / E/105.5	E/105.5	C/22.6	E/43.1	C/24.2	C/28.1	C/20.7	F/93.4	C/22.1	E/19.0	F/9.9	
PM Peak Hour	2019	No Build	Existing Conditions	C/27.0 / E/64.8	E/64.8	C/29.3	E/49.0	C/28.4	C/28.4	C/29.3	E/69.0	C/29.3	C/26.4	E/19.5	F/7.0
	2029	No Build	Existing Conditions	C/27.0 / E/64.8	E/64.8	C/29.3	E/49.0	C/28.4	C/28.4	C/29.3	E/69.0	C/29.3	C/26.4	E/19.5	F/7.0
Evening St / Higbee Ave															
AM Peak Hour	2019	No Build	Existing Conditions	A/4.4 / A/4.4	A/4.4	C/22.8	E/22.8	C/22.8	E/60.6	E/60.6	E/60.6	D/46.8	E/49.0	C/22.2	
	2029	No Build	Existing Conditions	A/4.5 / A/4.5	A/4.5	C/22.8	E/22.8	C/22.8	E/60.6	E/60.6	E/60.6	D/46.8	E/49.0	C/22.2	
PM Peak Hour	2019	No Build	Existing Conditions	A/4.4 / A/4.8	A/4.8	C/22.3	E/22.3	C/22.3	E/63.7	E/63.7	E/63.7	D/47.1	E/49.3	C/22.4	
	2029	No Build	Existing Conditions	A/4.4 / A/4.8	A/4.8	C/22.3	E/22.3	C/22.3	E/63.7	E/63.7	E/63.7	D/47.1	E/49.3	C/22.4	
Evening St / W. Hilliard Ave															
AM Peak Hour	2019	No Build	Existing Conditions	A/7.4 / A/7.4	A/7.4	A/7.5	-	A/7.5	-	A/7.1	A/7.1	A/8.5	-	A/7.9	
	2029	No Build	Existing Conditions	A/7.4 / A/7.4	A/7.4	A/7.5	-	A/7.5	-	A/7.1	A/7.1	A/8.5	-	A/7.9	
PM Peak Hour	2019	No Build	Existing Conditions	A/7.4 / A/7.5	A/7.5	A/7.5	-	A/7.5	-	A/7.1	A/7.1	A/8.3	-	A/7.9	
	2029	No Build	Existing Conditions	A/7.4 / A/7.5	A/7.5	A/7.5	-	A/7.5	-	A/7.2	A/7.2	A/8.3	-	A/8.1	
Linnerton Ave / Loop/High Ave															
AM Peak Hour	2019	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.1	A/7.1	A/8.5	-	A/7.9	
	2029	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.1	A/7.1	A/8.5	-	A/7.9	
PM Peak Hour	2019	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.1	A/7.1	A/8.5	-	A/7.9	
	2029	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.2	A/7.2	A/8.3	-	A/8.1	
Worthington Galena Rd / Crandall Dr.															
AM Peak Hour	2019	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.2	A/7.2	A/7.8	-	A/7.9	
	2029	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.2	A/7.2	A/7.8	-	A/7.9	
PM Peak Hour	2019	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.2	A/7.2	A/7.8	-	A/7.9	
	2029	No Build	Existing Conditions	A/7.4	-	A/7.5	-	A/7.5	-	A/7.2	A/7.2	A/7.8	-	A/7.9	
M High St / High & Access															
AM Peak Hour	2019	Build	Existing Conditions	E/40.6	-	E/40.6	-	E/10.2	-	-	-	-	-	A/3.4	
	2029	Build	Existing Conditions	E/17.0	-	E/19.3	-	E/6.3	A/0.9	-	-	A/11.2	E/11.4	A/8.5	
PM Peak Hour	2019	Build	Existing Conditions	E/17.1	-	E/19.4	-	E/6.3	A/0.9	-	-	A/11.2	E/11.4	A/8.5	
	2029	Build	Existing Conditions	E/19.0	-	E/19.0	-	E/12.0	-	-	-	-	-	A/7.7	
AM Peak Hour	2019	Build	Existing Conditions	E/16.9	-	E/16.9	-	E/12.0	-	-	-	-	-	A/7.7	
	2029	Build	Existing Conditions	E/21.3	-	E/20.0	-	E/12.0	-	-	-	-	-	A/7.7	

X = Overall LOS / Average Delay Per Vehicle

* HCM 2000 results are shown because HCM 6th edition methodology does not support a permissive *protected left turn type from a shared lane

We analyzed the existing street network in the No-Build condition (without site generated trips) to determine whether background improvements are needed to attain acceptable performance in the pre-development condition. We analyzed the street network again with site trips added to determine whether site-related improvements are necessary to meet the performance threshold. All but two existing intersections in the Study Area operated at level of service D or better under current roadway conditions.

The intersection of High Street/Wilson Bridge Road produced overall LOS E and F during AM and PM peak hours in both 2019 and 2029 horizons. This is a background result under predevelopment conditions and not related to site generated trips. Considering the considerable size of this intersection as it exists today, and that it was recently improved, we did not introduce background improvements and attempt to attain LOS D performance at this location. Instead we reanalyzed the intersection with site-generated trips added, and compared the results. The LOS letter-grade is the same in both No Build and Build site conditions and overall delay is generally consistent. The biggest difference was an approximate 4% increase in overall delay between the No Build and Build conditions in the PM peak, 2029-horizon year.

The SR-161/Evening Street intersection operated at LOS C overall in all scenarios. Individual movements operate at LOS D or better with the exception of the northbound movements. The relatively low volume on the northbound approach (about 5 vehicles per cycle in the horizon year PM peak) incurs a certain level of delay regardless of signal timing in the model, and there is no material difference in LOS/delay with or without site-generated traffic.

The proposed site access to High Street, south of Larrimer Avenue did not meet performance criteria under stop sign control. Outbound left turn movements operate at LOS F under stop sign control while full inbound movements (left turn and right turn) and right turns outbound meet criteria at LOS D or better. All movements at this site access point meet performance criteria under traffic signal control.

Turn Lane Length and SimTraffic Queue Simulation

This study assessed anticipated horizon-year traffic queues and turn lane storage length requirements based on procedures outlined in the [Location and Design Manual, Volume 1](#) (Ohio Department of Transportation) and SimTraffic simulation of both peak hours, including site-generated traffic. We focused on turn lane storage bay lengths and anticipated queues at the High Street/Worthington Galena Road and the relationship between that intersection and the proposed High Street/Hilliard Avenue site access. Similarly, we evaluated traffic operations between High Street/Worthington Galena Road intersection and the Worthington Galena Road/Crandall Drive intersection. **Table 3** summarizes the results of queue modeling and lane sizing calculations.

The northbound approach to the High Street/Worthington Galena Road intersection currently provides approximately 80 feet of storage for northbound left turning vehicles entering the site. The existing left turn storage is adequate for the 95th percentile queue result in the SimTraffic model for design year, full-build conditions, but is less than the 100 feet suggested by the ODOT calculation. The SimTraffic queue in the adjacent through lanes is 250 feet in the 2029 design year suggesting that the northbound left turn lane should be lengthened to prevent blocking. We recommend converting the existing two-way-left-turn-lane (TWLTL) markings to a dedicated northbound left turn lane extending approximately 200 feet south of the stop line. This improvement should maintain a short section of TWLTL for southbound left turns into the parking lot for 1020 N. High Street.

Table 3 - Turn Lane Length and Queue Simulation Results

Turn Lane	2029 Build Volume (AM/PM)	Number of Lanes	ODOT L&D Storage Avg. feet per lane (AM/PM)	Sim Traffic 95th Percentile Max Ft. in Single Lane (AM/PM)	Current Storage Length (in feet)	Recommended Length
High Street/Worthington Galena Road						
Northbound	L 24/44	1	50/100	71/81	80	200
	T 839/837	2	400/400	197/250	1000 per lane	1000 per lane
	R 202/272	1	250/275	124/142	90	90
Southbound	I 165/140	1	200/175	244/140	120	285
	T 829/1080	2	400/500	282/179	540 per lane	540 per lane
	R 7/8					
Eastbound	L 5/17	1	50/50	15/41	60	60
	T 7/4	1	100/100	69/69	350	350
	R 49/50					
Westbound	L 305/356	1	325/350	234/264*	170	170
	T 1/5	1	175/150	114/114*	170	170
	R 131/122					
High Street/High East Access						
Northbound	L 105/111	1	150/150	76/89	TWLT	100
	T 806/866	2	375/400	123/147	540 per lane	540 per lane

* Queue extends through Crandall Drive intersection. Length shown is sum of SimTraffic westbound queue at High Street + westbound queue at Crandall Drive

Similarly, the southbound left turn lane at the High Street/Worthington Galena Road intersection is approximately 125 feet long while anticipated queues extend to 177 feet without site development and up to 244 feet under horizon year Build conditions. We recommend converting the existing two-way-left-turn-lane (TWLTL) markings to a dedicated southbound left turn lane extending approximately 285 feet north of the stop line, which is long enough to prevent blocking by queued vehicles in the adjacent through lane. From that point north, the existing TWLTL should remain for approximately 150 feet in order to provide left turn access into the City fire station. Then High Street should provide a dedicated northbound left turn lane, approximately 100 feet long, on the approach to the proposed High East access point.

The westbound approach of Worthington Galena Road to High Street currently provides 2 lanes (1 for left turns and 1 planned for through-right movements) for a distance of approximately 170 feet east of the stop line at High Street or about 110 feet east of the centerline of Crandall Drive. Queues in the left turn lane extend through the Worthington Galena Road/Crandall Drive intersection under existing conditions but Crandall Drive traffic is able to enter Worthington Galena Road during gaps created by the High street signal. Site generated traffic will add to the queue in the westbound through-right lane on Worthington Galena Road where the volume and queue length is currently much less than the westbound left turn lane queue. By the 2029 design year with site traffic included, the westbound through-right queue length is 114 feet, which fits within the existing lane length, and the maximum queue length in the westbound left turn lane is 264 feet, which is about 94 feet longer than the current lane marking. Site trips do not contribute to the westbound left turn lane queue.

Sight Distance Evaluation

This study reviewed available sight distances on the westbound approach of Crandall Drive at Worthington Galena Road. The posted speed limit on Worthington Galena Road is 25 miles per hour and the Intersection Sight Distance (ISD) guideline to make a left turn and right turn is 280 feet and 240 feet, respectively. See the [Location and Design Manual](#) § 200 (Ohio Department of Transportation). In cases where ISD is not

available due to environmental or right of way constraints, the L&D Manual states Stopping Sight Distance (SSD) for vehicles on the major road should be provided. Stopping Sight Distance is 155 feet at 25 mph.

The attachments to this letter include a sight distance exhibit showing that ISD is available looking northeast from a drivers eye position on Crandall Drive. The adjacent intersection at High Street complicates sight distance to the west. ISD is available to view eastbound traffic on Wesley Boulevard west of High Street. Sight distance from Crandall Drive to traffic entering Worthington Galena Road via a left turn or right turn from High Street is less than ISD due to the proximity of the intersection (although that turning traffic is unlikely to be operating at 25 mph). Stopping Sight Distance at 25 mph is available to drivers entering Worthington Galena Road on a right turn or left turn from High Street.

ODOT guidelines call for the removal of objects 2 feet and higher within the sight triangle. The attached sight-distance exhibit shows that the alignment of roadways and grades comply with sight distance guidelines. There are existing obstructions in the sight triangles such as street trees, signs, utility poles, etc. that should be managed by City staff to the extent feasible. Site development at the UMCH property does not impact sight lines at the Worthington Galena Road/Crandall Drive intersection.

Conclusions and Recommendations

Redevelopment of the UMCH property as described above should include the following roadway improvements:

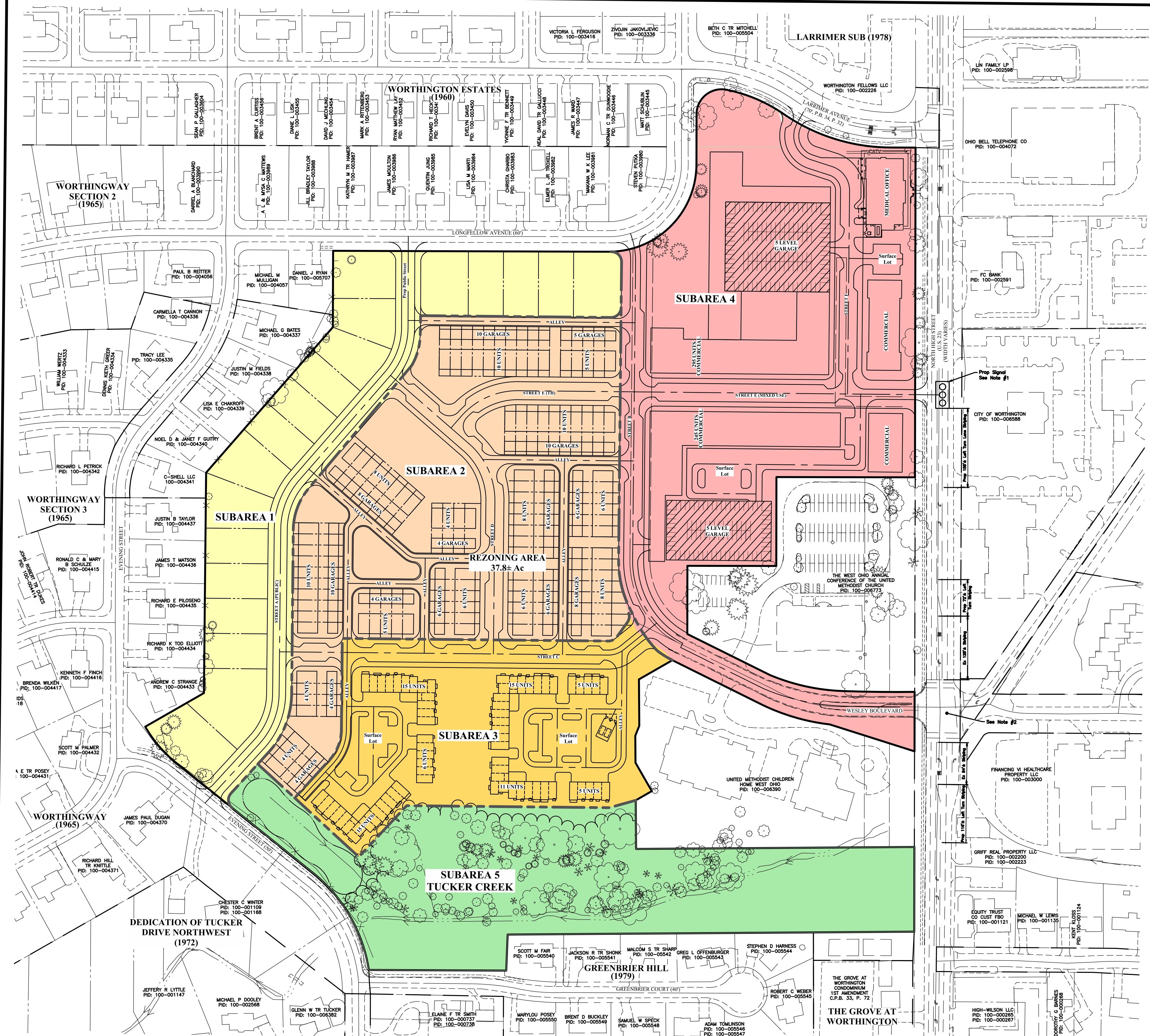
- Install a new traffic signal at the High Street/High East Access when warranted. This signalized access should be located approximately mid-way between existing signals at High Street/Worthington Galena Road and High Street/Larrimer Avenue.
- Operate the High Street/High East Access signal semi-actuated with fire preemption and remove the existing "fire signal" currently in place to control southbound traffic.
- Revise pavement marking on High Street to provide a 100-foot long northbound left turn lane at the High East access point.
- Revise pavement marking at the High Street/ Worthington Galena Road intersection to extend the length of existing northbound and southbound left turn lanes to 200 feet northbound and 285 feet southbound.
- Modify signs, pavement marking and signal operation to permit full movements eastbound and westbound (left turn, right turn and through) at the High Street/Worthington Galena Road intersection.

Should questions or comments arise during your review of this memorandum or if I may be of further assistance in this matter, please feel free to contact me at (614) 775-4640.

Sincerely,

EVANS, MECHWART, HAMBLETON & TILTON, INC.

Lawrence C. Creed, Esq., PE
Principal
Director of Traffic Engineering Services



SUBAREA	USE	LOTS/UNIT/SQUARE FOOTAGE	ACRES	DENSITY
Subarea 1	Single Family	19 Units	5.9± Ac	3.2 Lots/Ac
Subareas 2	Multi-Family	94 Units	9.0± Ac	10.4 DU/Ac
Subarea 3	Multi-Family	72 Units	5.1± Ac	14.4 DU/Ac
Subarea 4	Multifamily Commercial Medical Office	540 Units 60,000 SF 25,000 SF	11.4± Ac	47.8 DU/Ac
Subarea 5	Tucker Creek	-	6.4± Ac	-
TOTAL		-	725 DU	37.8± Ac
				19.2 DU/Ac

EMHT
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Phone: 614.773.5346
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DATE

AUGUST 29, 2019

SCALE

1" = 100'

JOB NO.

2018-0036

SHEET

5/23